This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

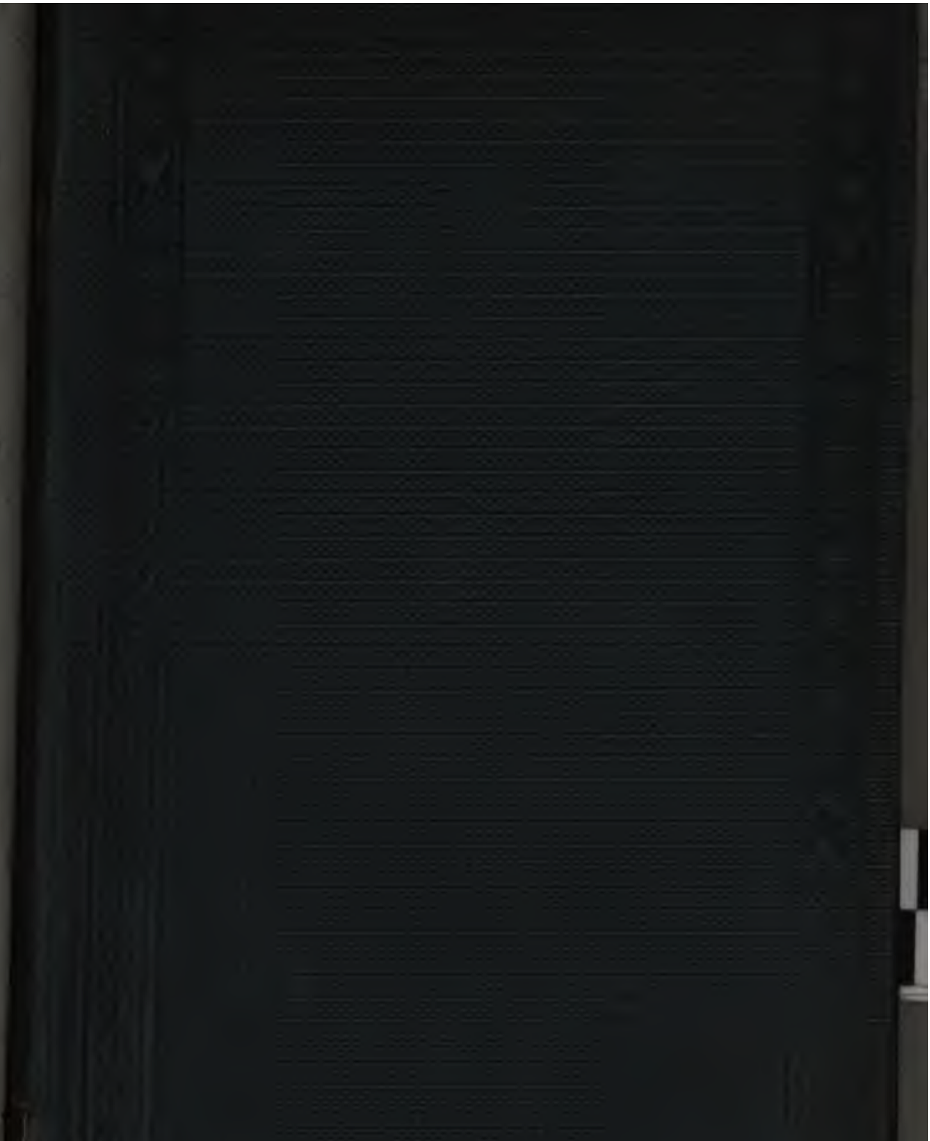
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`



GLEIG'S SCHOOL SERIES.

New Series of Elementary School-Books; each Book (in most instances) com-
e in itself, price *NINEPENCE*. Intended to comprise a complete Course of
entary Education. Projected and Edited by the Rev. G. R. Gleig, M.A.,
ain-General to Her Majesty's Forces. Assisted by

ER M'LEOD, F.R.G.S.	THE REV. J. HUNTER, M.A.	THOMAS TATE, F.R.A.S.
IAM HUGHES, F.R.G.S.	DR. R. J. MANN, M.R.C.S.E.	A. K. ISBISTER, M.A.
JAMES OWEN.	PROF. R. W. BROWNE, M.A.	W. J. REYNOLDS, M.A. ETC.

☞ New and improved Editions of the following Works may now be had.

	s.	*d.*
FIRST SCHOOL-BOOK to TEACH READING and WRITING	0	6
SECOND SCHOOL-BOOK to TEACH READING and SPELLING	0	9
A GRADUATED SERIES of NINE COPY-BOOKS each	0	3
SIMPLE TRUTHS from SCRIPTURE	0	6
EXPLANATORY ENGLISH GRAMMAR, 9*d.*—DEFINITIONS	0	1
HISTORY of the ENGLISH LANGUAGE	0	9
The CHILD'S FIRST GEOGRAPHY	0	9
GEOGRAPHY of the BRITISH EMPIRE	0	9
GENERAL GEOGRAPHY	0	9
HAND-ATLAS of GENERAL GEOGRAPHY, 29 full-coloured Maps, sewed, 2s. 6d.; half-bound	3	0
CLASS-ATLAS of PHYSICAL GEOGRAPHY, 30 full-coloured Maps, Sections, and Diagrams, sewed, 2*s.* 6*d.*; half-bound	3	0
BOWMAN'S *Questions* on M'Leod's *Physical Atlas*, 1*s.*		
PHYSICAL ATLAS of GREAT BRITAIN and IRELAND, fcp. 4to	7	6
SACRED HISTORY, 2*s.*; or in Two Parts each	0	9
HISTORY of ENGLAND, 2*s.*; or in Two Parts each	0	9
HISTORY of the BRITISH COLONIES	0	9
HISTORY of BRITISH INDIA	0	9
HISTORICAL QUESTIONS, Part I., on the above	0	9
HISTORY of FRANCE	0	9
HISTORY of GREECE, 9*d.*—HISTORY of ROME	0	9
BOOK of BIOGRAPHY	0	9
ASTRONOMY and the USE of the GLOBES	0	9
ELEMENTS of EUCLID, 9*d.*—PRACTICAL GEOMETRY	1	0
ELEMENTS of MENSURATION, 9*d.*—KEY	0	9
ELEMENTS of PLANE TRIGONOMETRY, 1*s.*—KEY	0	9
TREATISE on LOGARITHMS, THEORETICAL and PRACTICAL, *just ready.*		
A MANUAL of ARITHMETIC	0	9
BOOK-KEEPING by SINGLE and DOUBLE ENTRY	0	9
A Set of Eight Account Books, adapted to the above, price 6*d.* each.		
ELEMENTS of ALGEBRA, 9*d.*—ANSWERS to PROBLEMS in ditto	0	3
HYDROSTATICS, HYDRAULICS, and PNEUMATICS	0	9
THE BOOK of HEALTH	0	9
BOOK of DOMESTIC ECONOMY	0	9
ELECTRICITY, 9*d.*—LIGHT and HEAT	0	9
MAGNETISM, VOLTAIC ELECTRICITY, and ELECTRO-DYNAMICS	0	9
EXPERIMENTAL CHEMISTRY	0	9
MECHANICS and the STEAM-ENGINE	0	9
NATURAL HISTORY for BEGINNERS, 2*s.*; or in 2 Parts each	0	9

[illegible] REEN, & CO., 14 Ludgate Hill.

600068099

ON

METHOD AND ORGANISATION.

LONDON
PRINTED BY SPOTTISWOODE AND CO.
NEW-STREET SQUARE

A MANUAL

OF

METHOD AND ORGANISATION.

ADAPTED TO THE

PRIMARY SCHOOLS OF GREAT BRITAIN, IRELAND, AND THE COLONIES.

BY

R. ROBINSON,

INSPECTOR OF NATIONAL SCHOOLS, IRELAND.

LONDON:
LONGMAN, GREEN, LONGMAN, ROBERTS, & GREEN.
1863.

~~200. u. 56.~~

BIBLIOTHECA·BODLEIANA

PREFACE.

THIS work differs from others in being more practical. I know of no work already published that explains fully and minutely all the steps which ought to be taken by a teacher in giving a lesson upon Reading, Writing, Arithmetic, Spelling, Grammar, Geography, or other subject of his school course. Most of those that I have seen either enter too fully into the principles of a good method, and too little into the actual steps which ought to be taken; or else confine themselves too exclusively to mere organisation. There are very few works to which a teacher could refer with certainty, if he sought to know whether his own system was right or not, and what methods were most generally approved of, or to which a school manager could point and say, 'I wish the classes to be taught so.'

It was to supply this want, to the best of my ability, that I wrote the present work. In it are carefully detailed the most serious of the errors committed by teachers, and which my long experience as an Inspector of Schools gave me an opportunity of noticing.

Why they are faults is also shown, together with the remedies which have been found best calculated to remove them. The value of these remedies is established by such arguments as appeared to me to be the most suitable, and the principles upon which they depend are explained with sufficient fulness to enable teachers to carry them out intellectually, instead of mechanically, and to vary them judiciously when the special circumstances of their schools require such a course.

I have avoided all disquisitions (thought so necessary by some authors) upon *memory*, *judgment*, *reasoning*, *attention*, &c.; for though it may conceivably be argued that those who take upon themselves the office of educating beings endowed with these faculties ought certainly to know something of their peculiar functions, and of the theory and conditions of their successful action, yet there appeared to me to be two very strong reasons against entering upon these subjects in a work designed for teachers of elementary schools. (1) I felt that the vast majority could not understand metaphysical disquisitions of the kind; and (2) that of those who could there were very few indeed capable of making this knowledge available in improving either their methods of teaching or the general arrangements of their schools. And unless they could do this, I felt that the subjects would be misplaced. My aim has been to mingle theory with practice, but always to keep the former subordinate to the latter, and produce such a work as would, I hoped, be of benefit even to the most intelligent teachers, and would certainly be practicable by all.

I would respectfully draw the attention of those, who are engaged in administering the affairs of public education, to the system of teaching sketched out in this work, as I believe it will be found, if efficiently carried out, a more hopeful and available remedy for the defects of popular education which admittedly exist, than those generally brought under public notice. Most educationists look forward to a new race of teachers as the only possible means of producing satisfactory results in our primary schools, and overlook the more feasible remedy of improving those already in office. They seem to take it for granted that the present educational staff have attained to the highest point of excellence of which they are capable; but my experience of schools has shown me that this is an error; and that, on the contrary, results far superior to what are now produced can be effected by the ordinary national teachers of the country, provided only that their energies and talents are properly directed.

I can speak with considerable confidence on this point. The system of which I approve, and which is sketched out in the following pages, has been in operation, more or less successfully, for the last few years, in all the schools which comprise my present circuit of inspection; and the following statistics, in which its results are compared with those produced in other districts in Ireland under similar circumstances, will show what may be effected without changing the machinery at present in force.

The rate of progress from class to class is taken as the best available test of efficiency; and I believe it to be a test sufficiently fair and searching to establish the truth of what I have said. In the last Report of the Commissioners of National Education, Ireland (that for 1861), I find that, out of those who were at any time on the roll during the year, the schools which make up each Inspector's district fitted, on an average,

16·36	per cent.	of those in	1st Book	for removal into	2nd	Book
21·66	„	„	2nd Book	„	Sequel	„
28·74	„	„	Sequel Book	„	3rd	„
15·54	„	„	3rd Book	„	4th	„
4·75	„	„	4th Book	„	5th (or highest)	

Whereas in this district I find that the following are the corresponding per-centages:—

26·4	per cent.	were fitted for	2nd	Book
40	„	„	Sequel	„
55	„	„	3rd	„
37	„	„	4th	„
2·3	„	„	5th[1]	„

That is, that the results produced in this district were *twice* as great as those produced in any other district in Ireland, on an average; and, therefore, if the same system were carried out in all, there would be

---

[1] In the year 1861, I recommended the majority of the teachers to consider the Fourth Reading Book as their highest for some time, and hence the very small per centage of removals appearing from it. In 1862, I found the character of the schools so much improved that it was possible to establish judiciously a fifth class in several of them, and, in consequence, the removals from fourth books for that year were no less than 35 per cent.

I am sorry that I have not now an opportunity of comparing the removals in my district, for 1862, with the removals in other districts in Ireland for the same year (the Report of the Commissioners not yet being published), but I give here the per-centages for my own district, to show that even the very large results secured in it, for 1861, have been surpassed considerably in 1862. In it

25	per cent.	were fitted	for promotion into	2nd	Book
43	„	„	„	Sequel	„
60	„	„	„	3rd	„
45	„	„	„	4th	„
35	„	„	„	5th	„

just twice as many educated yearly as there are now, without any change whatever in the teaching body, any additional expense to the Government, or any delay or disappointment in preparing a highly educated body of men, difficult to procure and difficult to retain.

It may be said, that *removals* can only be taken as a reliable test when they have been made properly by the teachers, and that, where their number is so far in advance of the average as in my district, the probabilities are that they have been made hastily and incorrectly; but in reply to this I may state, (1) that the children were nearly all removed by myself, and only after passing a very severe examination; and (2) that the provincial inspector, who has an opportunity of examining several different localities, assures me that any one class in my district is quite as good as the corresponding class in any other district; and this manifestly would not be the case were the children promoted before they were qualified.

I cannot expect that all advanced by me in the present work will be approved of, for systems of education have not yet passed the purely tentative stages of their course; but I offer the work to the public as my quota to the general stock of experience out of which more perfect systems will be elaborated at some future time. If it prove the means of enabling any manager to place his school on a more satisfactory footing; if it enable any teacher to produce higher and more intelligent results; or if it draw the attention of those in power to the advancement of that useful body of men in whose hands the primary education of the country is at present placed, I shall feel that the labour devoted to it has not been spent quite in vain.

It is now my pleasing duty to tender my grateful acknowledgments to J. E. Sheridan, Esq., Head Inspector of National Schools, Ireland, for the valuable assistance which he afforded to me in the preparation of this work. Many of the methods described in it, which have been found the most successful in practice, were suggested by him, and it was by his kind encouragement and approval that the work was originally persevered in.

I am also very glad of the opportunity now presented of stating, that I have profited very much by a careful perusal of the Reports of the Inspection Staff of Great Britain and Ireland; and I hope that the extracts which I have largely made may prove equally serviceable to those for whom my book is intended.

R. ROBINSON.

NEWCASTLE, IRELAND:
31*st July*, 1863.

CONTENTS.

CHAPTER I.

READING.

PAGE
Definition of good reading 1
Defects in reading, enumeration of, and causes assigned . 1
Remedies:
  Rule of Imitation 10
  Three ways of carrying out the rule 12
  Hints for applying it properly 13
  Method of teaching the junior classes to group words . 13
  Indistinctness, evils of, and remedies for 18
  Reading must be largely practised 22
  Must be taught as a distinct lesson 24
  Must read poetry 25
  Reading must be intelligent 26
  Meanings of words, object of the exercise 26
  Three faults in teaching it now 27
  True system described 32
  Analysis of text necessary 36
  Interruptions objectionable 39
  Undue attention to stops 42
  Length to which each child ought to read 44
  Means to make the class attentive 45
  Mr. M'Creedy's Rules 46
  Mr. Bellairs' Rules 48

CHAPTER II.

LESSON BOOKS.

PAGE
My remarks apply to any series of Reading Books . . 50
Rules—(1) Question and answer must not be in words of book 52
Evils and examples of rote teaching . . 53
How to avoid it 55
„ (2) Question must relate to *subject* of sentence, and answer to its *predicate* 55
Marginal notes recommended . . . 57
„ (3) Text must be expanded 59
Rambling teaching objected to . . . 60
Example of legitimate expansion . . 63
Object cabinet 67
„ (4) A Resumé required—value of it . . . 68
Hints for carrying it out 71
To be written as well as oral . . . 73
Preliminary questioning recommended . 74
„ (5) Lessons must be prepared by teacher—why? . 75
Essentials of good questioning . . . 77
Notes of lessons—objections against . . 80
Examples of form recommended . . . 82
Must not teach from the notes . . . 85
Special remarks on Special lessons:
(1) How to deal with the Fables, Stories, &c. . . 86
(2) Poetical lessons—memory, &c. 87
(3) Monosyllabic lessons 92

CHAPTER III.

SPELLING.

Oral Spelling:
Old methods of teaching described, defects of . . 98
We do not spell by the sound, nor analogy, nor rules . 101
We spell by the eye chiefly—five proofs of this . . 104
Spelling is learned by reading and writing, opinions for 106
Spelling from dictation explained 107
Hints to carry it out 110
Distinctness in spelling 111

PAGE
Spelling by syllables, value of 111
Spelling books cannot be superseded. 113

Written Spelling:

Copying from print 114
Dictation exercise—in what it consists 116
(1) The passage, selection of, &c. 117
(2) The writing, paper recommended 118
(3) Marking the errors, plan for 125
(4) Correcting these errors, value of 128
Prompting and copying to be prevented 131
Graduated exercises for each class 134

CHAPTER IV.

WRITING.

Writing the popular test of a school. 135
Defective at present, and why 137

Rules to secure good writing:

(1) Paper to be used with all classes. 139
(2) Pens to be supplied from a stock in school . . 141
(3) Method of holding the pen 143
(4) Quality, and supply of ink 144
(5) Supply for master 145
(6) Copy-books, quality of 146
Method of securing cleanliness 148
(7) Position of the child 149
(8) Rule to secure imitation of headline 150
Method of marking the errors. 151
Oral corrections insufficient 153
Mr. Moseley's system 154
Supervision, extent recommended 155
(9) Headlines to be written 159
Arguments for and against engraved lines . 161
Value of written lines 163
Minimum proficiency for each class . . . 167
(10) Begin early, and attend carefully to the junior classes 167
(11) Do not begin with 'Large hand' 171
Large hand to be taught last 175
(12) Not to write much at a time 176
(13) Write by divisions 176
Application of writing, writing from memory, &c. . . 177

CHAPTER V.

ARITHMETIC.

Counting:

PAGE
Two kinds of, described 179
Two laws from names of figures 181

Notation and Numeration:

Unit-ing system described and objected to . . 183
True system simple 185
Teaching three places of figures 187
Remarks on larger numbers 191
Notation taught mechanically 195
Proficiency for each class 198
Figures to be neat, copying on paper 201

Tables:

Method of teaching addition table 204
Teaching the other tables 207
In what order they are to be learned 209
Proficiency for each class 213

Simple Rules:

Carrying explained 215
Improper methods 216
Desk and floor teaching 219
Plans to secure quickness 221
'Borrowing' explained 225
Rule of multiplication 227
Long and short division 229
Proof of rules 230
Rationalé of arithmetic 233
Test questions 238

Compound Rules:

Why called so 240
Long division to be avoided in dividing by small numbers 241
Proficiency required 242
Reduction 243

Proportion:

What it is 243
Statement 245
Methods of working described 247

PAGE
Theory of proportion 251
Test questions on theory 253
Practice:
Its connection with proportion 255
Thirteen rules reduced to one 257
Shop accounts 258
Mental Arithmetic:
Nature of. 260
Time for 264
Interest, Hints on 265
Rules for. 266

CHAPTER VI.

GRAMMAR.

Old method described, faults of 267
Etymology to be first taught 269
Technical terms can be dispensed with 271
Definitions to be applied 274
New definitions of parts of speech 279
Hints upon the article 281
Hints on the preposition 283
Use of text-books 285
Rules of syntax 287
Parsing—three kinds of 289
Too many forms of 293
Parsing without technical terms 294
Analysis of sentences 297
Description of a proper treatise on grammar 302
Teachers must read good authors 305
Written composition. 307
Derivation of words 310

CHAPTER VII.

GEOGRAPHY.

Two ways of teaching this 313
Explanation of certain terms—Mr. Moseley's remarks . 315
Maps to be used—and how to use them 319

PAGE
Cardinal points 321
Definitions to be taught on map 323
To avoid 'map' teaching. 325
What a knowledge of geography is 329
Faults in questioning 331
When text-books are to be used 333
Proficiency for each class. 335

CHAPTER VIII.

HOME LESSONS.

Necessity for and value of 337
Length of tasks 341
Method of carrying out 342
Revision of written exercises 345
Rote answering bad. 347
Against individual teaching 347
Method of avoiding this system 351
Table book 353
Spelling Book Superseded—Method for teaching it . . 353
Teachers must value Home Lessons themselves . . 357

CHAPTER IX.

GENERAL HINTS.

(1) Programme of proficiency for each class—value of . 358
    New one drawn up 360
(2) Removals—importance of 359
    General rules for 363
    Plan adopted in this district. 363
    Proficiency of a child eleven years old . . . 367
(3) Classification based on programme 368
    Exceptional cases. 369
    Different classifications for each subject. . . 369
(4) Means to keep up attention 370
    (1) Taking places. 371
    (2) Hold out hands 371
    (3) Point to the child 373
    (4) Answer together 373
        This leads to different opinions of same school 375
        Managers should examine 375

PAGE
(5) Children to correct answers 376
(6) Mutual questioning. 377
(7) Rewarded or punished 377
(5) State of school in reference to teacher's certificate . 378
(6) Junior classes, importance of 379
(7) Time Tables:
What these really are 383
Examples of bad time tables 384
Observations on these 389
Hints for forming time tables 39
Remarks on these hints 392
(8) Monitors, cause of prejudice against 403
What they may be used for 407
Plan of using them described 411
(9) Discipline, order, &c.
Evils of over-drilling 415
Proper course to adopt 417
Arrangement of maps, books, slates, &c. . . 419
Monitors of order 423
Discipline defined 424
Anger and passion 425
Lying 427
Obedience 429
Rewards and punishment 431
(10) Neatness and cleanliness, value of 434
(1) Cleanliness of master 435
(2) Cleanliness of children 437
(3) Of schoolroom 439
(4) Of premises 440
Keeping the windows glazed 443
Painting the woodwork 445
(11) Attendance, defects of 446
Remedies for—(1) Improve schools 447
(2) Exclude children 447
(3) Make payments quarterly. . 447
(4) Speak to parents 449
Methods for securing punctuality in the mornings . 450
(12) Influence of parents 452
Should be courted 453
Parents—how far they ought to interfere . . 455
(13) Teacher's office 456
His character 457

A MANUAL

OF

METHOD AND ORGANISATION.

CHAPTER I.

READING.

READING may be called good when it is easy, yet not flippant; clear and firm in tone, without show or affectation; definite and exact in enunciation, without a parade of distinctness; expressing at the same time the true meaning intended, and joining with this expression judgment and taste.

Definition of good reading.

It unites *expression* with *understanding*; and, therefore, its chief defects must relate to the comprehension of the text, and to the tone and manner in which the sense is conveyed. Defects in tone and manner are indistinctness, hesitation, affectation, monotony, unnatural pitch of voice, mal-pronunciations, &c. Of these I intend to exclude pronunciation, for although a boy may pronounce badly, yet he may be able to collect easily and truly the statements of the author, and convey them clearly and forcibly to others; and these, as I take it, are the two most important elements of all reading, and about the only ones we have a right to seek for in most of our primary schools, or that we are at all likely to attain.[1]

Defects of reading.

Pronunciation excluded.

---

[1] The Rev. J. Fraser, in his Report to the Education Commissioners, 1861, vol. ii. p. 92, says, 'that what we want

Undue importance given to this at present.

I am aware that many teachers look upon the correction of such errors occurring in the reading as the most important of their duties. They pass over the child's comprehension of the text, and the force and correctness with which he makes himself understood almost entirely, in their extreme desire to secure purity of utterance. They appear, as the Rev. Mr. Grant describes them, [1] 'to be lying in wait for provincialisms,' and by their captious manner, and their constant fault-finding, they worry and distract their children until they force them to commit, in their perplexity, errors of which they otherwise would have been quite innocent.

Why wrong?

This not only destroys the efficacy of the reading lesson, but it is, to a great extent, a mere waste of time. If any teacher expects that he will ever be able to eradicate all trace of such errors, I am afraid he will be sadly disappointed. The time will never come, most likely, when all the people of Great Britain and Ireland will speak exactly alike, and yet it is for this unattainable uniformity such men are struggling. In every neighbourhood there is a difference of pronunciation which distinguishes the educated from the uneducated. It is this which should be the teacher's guide, and it is the removal of such distinction, by improving those within his influence, that should form the limit of his ambition.

Reading lesson not the best place to attend to mal-pronunciations.

I do not think, however, that the reading lesson affords the most suitable opportunity for this. Errors of pronunciation consist chiefly of provincialisms and

is, 'distinct articulation, proper expression, and an intelligent comprehension of the drift of the passage read.' And Mr. Grant (Min. of Council, 1860–1, p. 88) concurs. He says, that the main object to be effected is 'to teach the class to read the piece before them with ease and intelligence.' He adds, that if teachers always kept this in view, 'they would keep their corrections and questions in due subordination, and would avoid other sources of waste of time and power.'

[1] Min. of Council, 1860–1, p. 88.

At irregular periods during school business best.

Reducible to a few heads.

local peculiarities, and can, therefore, to a great extent, and without interfering with the actual business in hand, be checked in that conversational intercourse which always exists between the teacher and children during school hours. They are all reducible, as Dr. Woodford remarks,[1] to a few great heads, and therefore it is obvious that a short column of words and a few simple expressions might be selected to represent the whole, which, being carefully and repeatedly pronounced every morning, or as occasion may suggest, would serve for their correction.[2]

Defects almost universal.

Opinions in support of this statement.

Mr. Cook.

Mr. Moseley.

Mr. Thurtell.

The defects which I do retain under the head of bad reading are, I regret to say, almost universally met with, notwithstanding the vast improvement that must have taken place within the last twenty years in the education of the people of Great Britain and Ireland. Inspectors and other educational authorities refer to them in all their reports, from the first to the last. Rev. Mr. Cook says, that the reading 'is hasty, monotonous, and unintelligible.'[3] Mr. Moseley, that he is not aware that 'in any school is attention given to just expression or correct emphasis.'[4] Mr.

---

[1] Min. of Council, 1856-7, p. 620.

[2] The following extract will be of use in showing the different ways in which teachers deal with this matter. The bad teacher, in this, as in nearly all other cases, looks solely to the difficulties in his way; and instead of seeking about for means to remove them, he wastes his time in framing excuses, and showing why he should turn his back upon them; while, on the other hand, the good teacher will admit of no difficulties whatever, and so triumphs in the end.

'Inferior teachers,' says Mr. Nevill Gream (Min. of Council, 1860-1, p. 101), 'tell me it is useless to try to teach the children to do so (to pronounce the letter *h*); that the parents at home unteach, by their conversation, whatever is taught at school; that it is provincial, and make a great many other excuses. On the other hand, a good teacher says nothing, but sets to work; and the next year every child, from the oldest to the youngest, pronounces the *h* with correctness.'

[3] Min. of Council, 1845-6. [4] Ibid.

Thurtell: 'It is in general extremely monotonous.'[1] **Mr. Alderson** Mr. Alderson: 'I have found, in the course of my inspection, nothing more annoying than the indistinct mumbling which in many schools passes current for reading.'[2] **Mr. Brodie.** Mr. Brodie: 'By great courtesy only and forbearing allowance can that inaudible sound, which, because a pupil is standing with a book in his hands and his lips are doubtfully moving, you hope to hear, but might as easily hope to see, be called reading. Occasionally, but rarely, the other extreme prevails, and the whole class shrieks. Stops are disregarded, and the reader speedily sits down, or, if a female, droops into her place, with a serene indifference to the last words of the sentence, joyous anyhow to have rushed through the small portion of an ungenial task.'[3] While in his report for the next year he adds, 'There is imperfect enunciation and articulation, slurring over of final letters and syllables, little attention to stops, unheeded emphasis, mumbling, inaudibility.'[4] **Mr. Wilkinson.** Mr. Wilkinson, in the same year, corroborates this statement. He says, 'During the past year I have frequently had to complain of the inaudible mumbling, particularly among the lower classes of my schools, which frequently passes current for reading.'[5] **Mr. Sheridan** Again, in Ireland, Mr. Sheridan, Head Inspector, reports[6] that—'Almost universally the practice is to accustom the small children to utter the words *one by one*, and in the same tone throughout, which is always several degrees higher than the natural or speaking tone.'

My own experience. My own experience as an inspector is in accordance with the statements of these gentlemen. I have found that even with the most advanced children the tone is monotonous, unnaturally high, and, generally, so unlike that in which they speak, that, when a child ceases to read and begins to enter into conversation, so great a difference is manifested, that one might suppose he was listening to different persons.

---

[1] Min. of Council, 1847–8.
[2] Ibid. 1857–8.
[3] Ibid. 1859-60.
[4] Ibid. 1860–1.
[5] Ibid.
[6] Report on Southern Districts—National Education Report, Ireland, 1859.

Reasons assigned by

As reading is the most essential element in the school course, it is important to inquire what reasons have been assigned to account for this prevalence of defects. Dr. Newell attributes their existence *to the infrequency of teaching reading.* 'A boy,' he says, 'below third book class, should get at least two reading lessons daily, and he frequently gets but one.'[1]

1. Dr. Newell. (not teaching reading often).

Professor Butler, of the Central Training Establishment, Dublin,[1] assigns as a reason that *reading is not taught as a distinct lesson,* but always combined with subjects not naturally connected with it. He also states that the inattention of teachers themselves is a cause; for, from believing that reading is of easy acquisition, because commonly attempted, they fancy that but little reward would arise to themselves from excellence in it, and therefore they neglect it in favour of geometry, mensuration, &c.

2. Mr. Butler (not taught as a distinct lesson).

Mr. M'Creedy, Chief of Inspection, Ireland,[1] traces the faults to the habit which most teachers have of *interrupting the children frequently* to correct errors of pronunciation, to ask questions on the subject-matter of the lesson, or to require the derivation or meaning of some word. He adds, that it is wrong to curtail the portion which each is to read, in the desire to get at the pith and marrow of the text, and that to read well pupils must read much. Dr. Patten, Head Inspector,[1] supports this view of the case. He says that, 'The habit of *interrupting* the reading to question the children cramps the proper exercise of the voice, and thereby renders the reading unexpressive and disjointed;' while Mr. Sheridan,[1] whom I have already quoted from, thinks that

3. Mr. M'Creedy (owing to interruptions).

4. Dr. Patten (interruptions).

5. Mr. Sheridan. (inattention

---

[1] Reports of the Commissioners of National Education, Ireland.

to junior classes).

defects in reading are prevalent because *the monotonous pronunciation of the words incidental to the early attempts at reading are not diligently removed as the pupils gain fluency.*

Causes assigned by Her Majesty's Inspectors in England.

The causes assigned by Her Majesty's Inspectors of Schools for Great Britain, in addition to the above, are:—(1) Teachers' unwillingness to engage in the mechanical work of the school;[1] (2) Pupils and teachers too easily satisfied;[2] (3) Shape of class;[3] (4) Pupils do not read enough, owing to the size of class, and time spent on questioning, spelling, meanings, taking places, &c;[4] (5) Masters not conscious of the necessity which exists for applying special remedies;[5] (6) Too much noise in schools;[6] (7) Reading sentence by sentence, in order of position,[7] and others too numerous to mention here, but to which I have given references in the foot notes.[8] There is one, however, to which I wish specially to allude, as being much dwelt upon by these gentlemen of late years, and which their influence is likely very soon to remove altogether. I mean the unsatisfactory character of the reading books. Almost universally they have said that the books at present in use are too uninteresting, and too encyclopædic in character. That they are designed rather to instruct those who already know how to read, than to

The character of the reading books one great cause.

---

[1] Min. of Council, 1857–8, p. 252.

[2] Ibid. 1857-8, 1860-1, p. 187.

[3] Education Commission, 1861, vol. i. p. 251; and Min. of Council, 1848–9, vol. i. p. 118.

[4] Education Commission, 1861, vol. i. p. 251; Min. of Council, 1854–5, pp. 170 and 269; Min. of Council, 1856–7, p. 238; 1860–1, p. 62.

[5] Education Commission, 1861, vol i. p. 252.

[6] Min. of Council, 1847–8, vol. ii. p. 6.

[7] Ibid. 1860–1, p. 188.

[8] Ibid. 1846–7, vol. ii. p. 65; 1847–8, vol. ii. p. 6; 1848–9, vol. i. p. 119, and vol. ii. p. 179; 1852–3, p. 873; 1856–7, pp. 238 and 620; 1859, pp. 30 and 194; 1860–1, pp. 170 and 188; Education Commission, 1861, vol. i. pp. 247, 248, 252, 253, &c.

induce mere learners to persevere. It would occupy too much space to quote the remarks of each of these inspectors; I shall, therefore, merely give here the observations of Mr. Arnold (Minutes of Committee of Council for 1860, p. 159), as I think they convey the general opinion clearly and fully. He says, 'It is not enough remembered in how many cases his reading book forms the whole literature, except his Bible, of the child attending a primary school. If then, instead of literature, his reading book, as is too often the case, presents him with a jejune encyclopædia of positive information, the result is that he has, except his Bible, no literature, no *humanising* instruction at all. If again, his reading book, as is also too often the case, presents him with bad literature instead of good—with the writing of second or third-rate authors, feeble, incorrect, and colourless—he has not, as the rich have, the corrective of an abundance of good literature to counteract the bad effect of trivial and ill-written school books; the second or third-rate literature of his school book remains for him his sole, or at least, his principal literary standard. Dry scientific disquisitions, and literary compositions of an inferior order, are indeed the worst possible instruments for teaching children to read well. But, besides the fault of not fulfilling this, their essential function, the ill-compiled reading books I speak of have, I say, for the poor scholar the graver fault of actually doing what they can to spoil his taste, when they are nearly his only means for forming it. I have seen school books belonging to the cheapest, and therefore most popular series in use in our primary schools, in which, far more than half of the poetical pieces were the composition either of the anonymous compilers themselves, or of American writers of the second and third order; and these books were to be some poor child's anthology of a literature so varied and so powerful as the

Mr. Arnold's statement of their defects.

English! To this defectiveness of the reading books, I attribute much of that grave and discouraging deficiency in anything like literary taste and feeling which even well-instructed pupil-teachers of four or five years' training, which even the ablest students in our training schools, still continue almost invariably to exhibit. . . . . I believe that nothing would contribute so much to remedy it as the diffusion, in our elementary schools, of reading books of which the contents were really well selected and interesting. Such lessons would be far better adapted than a treatise on the atmosphere, the steam-engine, or the pump, to attain the proper end of a reading-book—that of teaching scholars to read well. They would also afford the best chance of inspiring quick scholars with a real love for reading and literature in the only way in which such a love is ever really inspired—by animating and moving them. . . . . .'

London publishers effecting a change.

It is not to be supposed that strong opinions of this kind, when supported by the educational influence of the inspection staff in Great Britain, would fail to produce their effects. Accordingly, many of the eminent publishing firms of London have undertaken the preparation of a series of Lesson-Books calculated at once to interest and instruct; the earlier books having almost solely the former object in view, while even in the more advanced, it is not wholly overlooked. The danger of such books is, that pupils may acquire a taste for light reading only, and such as will make them hereafter turn away in disgust from that dry hard study which must, after all, be encountered by every thorough searcher after knowledge. Such danger can only be averted by a careful and judicious mixture of the lessons, and a gradual change in their character and objects as they advance. I have recently had an opportunity of perusing carefully the 'Graduated Series,' published

Those of Messrs. Longman excellent of their kind.

by Messrs. Longman & Co., and I have no hesitation in saying that they will fully answer the objects in view, and that, while giving the child a strong desire and motive for learning to read, they will also improve his taste, mature his judgment, and strengthen his mind for any more advanced and more difficult studies he may hereafter be called upon to pursue.

All causes of defects, except the one just mentioned, can be traced to teachers' neglect.

All the causes assigned by the inspectors of Great Britain and Ireland for the prevalence of bad reading, may, with the exception just given, be attributed to some fault in the teaching body. I regret very much that this is so. I am, indeed, aware that there is scarcely any subject which requires more earnest care, constant labour, and never-failing patience, on the part of the teacher, than reading; and that it is on this account the best test of his faithfulness, energy, and ability; but there is no subject on which, in my opinion, a conscientious master should produce a more marked effect, as it is brought almost continually under his notice from the first day of the child's school life until its close, and as it is about the only subject in which he will be assisted by the hearty cooperation of the parents.

Yet reading can be made more of by a good teacher than any other subject.

Teachers not aware, apparently, that they are to blame.

From the great number of excuses given, one would think that the teachers had not yet been impressed with the fact that the faults lie almost entirely at their doors. I trust, however, that the time is not far distant when they will awake to a conviction of the real source of the many evils complained of; and that, by the exercise of the earnestness and talents which I know they possess, they will blot out for ever that which now so deeply stains their professional character.

Remedies.

To enable them to do this, I shall now proceed to lay before them, for their guidance, those rules which are the results of my own experience, and which I have found on trial to be easy of application, and, in the vast majority of cases, eminently successful.

I have arranged them, as far as they will admit of so simple a classification, under two heads. Those designed chiefly to secure expression, and those whose chief object is to make the children collect the drift of the passage read. And, first, the great means to produce correct expression may be said to consist in a steady adherence to one rule—THE RULE OF IMITATION; that is, *to reading the sentence as it ought to be read, and causing the child to exercise his powers of imitation upon the model thus placed before him.*

1. Rule of imitation.

Opinions in support of it (Mr. Bellairs)

The following extracts confirm this view. Mr. Bellairs says, 'Reading is learnt by imitation rather than by instinct or correction, and on these grounds a master should set a good copy to his children, and frequently read with them during the lesson.'[1] Mr. Riddell: that 'advanced excellence depends, of course, on the model afforded by the teacher.'[2] Mr. Fussell: 'Reading is, almost more than any other subject, a matter of imitation and reproduction.'[3] Mr. Middleton: 'Wherever I have found the best reading, I have found it produced by the teacher's own reading as an example.'[4] And, again, Mr. Kennedy: 'More, I think, might be done if teachers would make a point of reading to their classes, so as to set before them models of reading.' He adds, 'I observe that this appears to be seldom done either by teacher or apprentice.'[5]

Mr. Riddell. Mr. Fussell. Mr. Middleton. Mr. Kennedy.

Others could be given but not required.

I could give many other extracts, but I think they are scarcely necessary, as any one who at all thinks on the matter might see that reading, which is, after all, but cultivated talking, must, of necessity, be acquired as speaking itself is—by imitation. If

Each one can prove it himself.

---

[1] Min. of Council, 1848–9, vol. i. p. 119.
[2] Ibid. 1856–7, p. 467.
[3] Ibid. 1859-60, p. 21.
[4] Ibid. p. 260.
[5] Ibid. 1860–1, p. 97.

any other proof were required, that to read by imitation is in accordance with the laws of nature, and therefore the proper basis upon which to found an intellectual system of teaching this branch, it might be had in the fact that, even in schools where it is neglected by the master, it is yet practised by the children. They are insensibly but certainly forced to adopt it, but unfortunately they imitate one another instead of the master; and this they have done to so great an extent that it is scarcely possible to tell by the tone merely when one boy ceases and another begins.

It is universally pursued, therefore natural.

But they imitate each other and not the master.

If the master would supply the model, instead of allowing the boys to create one for themselves, can anyone doubt but that the same uniformity would exist, except that it would be a uniformity founded in correctness instead of in error? The fact is, that when reading is *taught* — that is, taught in the true sense of the word — the style of master and pupils ought to be almost exactly the same. And hence we have a capital test, not, indeed, as to the quality of the reading, but as to whether it has been faithfully and earnestly attended to or not. It is a test the teachers themselves should apply, and they should learn from it how imperatively they are called upon to read well themselves, in order to instruct others.

If master would supply the model, they would imitate it.

Test for the teaching of reading.

It may be asked, 'What is to be done if the model itself be bad?' In reply, I should say that those teachers who read badly themselves will find it impossible to make good readers by any system whatever. Such teachers should be called upon to improve, or else they should be removed as incompetent. But, even with the present staff of teachers, many of whom read badly, the adoption of the rule of imitation will still produce improvement, for by it the pupils should reach the level of the master's

What is to be done when the model is bad?

style, and this, it will be acknowledged, they now fall far short of.

Two ways to apply the rule.

1. Master reads—child listens.

2. Both read together. This to be used chiefly with the junior classes.

There are two ways in which the rule of imitation may be advantageously applied in practice: (1) Where the master reads and the child listens, and then endeavours to reproduce; (2) Where both read together. This last should be resorted to, however, only with the most backward, and chiefly in the junior classes; and, whenever used, the master should seek the earliest opportunity of dispensing with it in favour of the other, which is the most rational and correct; for, when both read together, the master, being engaged in reading himself, cannot attend satisfactorily to the errors of the child; and the child, being so completely engrossed with his own efforts on the one hand, and the master's style and tone on the other, is in danger of being too confused to imitate correctly, and must to a certainty lose the substance of what he reads.

A third way, described by Mr. Fletcher.

There is, indeed, a third way of applying this rule, but, in my opinion, not so good as either of the others. It consists in allowing the child to make an effort himself, and then giving him the model, so that he may compare his own results with the true standard. Mr. Fletcher thus describes it:[1] 'First, the selected hard words are spelt by each child in rotation, the monitor spelling them correctly *after* each, and not before it, that it may be enabled to appreciate the correction, if there be any, through having already made an effort. Next, each boy reads a *word* of the text, which is also read correctly *after* him by the monitor; a *whole clause* is then read by each in like manner, and under like correction. Finally, each reads a sentence completely, and, when he stumbles, appeal is made to other boys, when he who makes the true correction gains *one* place, and but one.'

---

[1] Min. of Council, 1847-8, vol. ii. p. 251.

The same gentleman describes the application of one of the other plans to the teaching of the junior classes thus:—'The monitors (who all read very well) read the lessons sentence by sentence; and each child in turn reads sentence by sentence after them, round and round the class, until all have read each sentence, and then they read without the leadership of the monitors.'[1]

Hints to carry out rule properly.

The following hints will be found of advantage.

1. Exemplar reading not to be too continuous.

(1) When reading *with* the child, do not let your own exemplar reading be too continuous. You ought, occasionally, to cease, and allow him to fill up the blank by himself, lest in the end he acquires the habit of repeating merely what he hears, and not what he sees. These blanks can be left in the easiest or most difficult parts, and made longer or shorter according to the proficiency of the child himself.

2. Not to be too much at a time.

(2) When reading *for* the child, do not read too much at a time. It is clear that if you do he is almost certain to forget the tone and style of the beginning while listening to the end. A small sentence, or one or two clauses of a large one, will in most cases be found sufficient, but with the advanced children more may be read. Of the exact quantity the teacher himself will be the best judge.

3. Rule must be applied early.

(3) And, above all, *begin early*, for when not applied soon enough habits are formed which it is almost impossible to remove at any future time.

Lowest classes must group the words by imitation.

Even the very lowest class children must be taught to group the words naturally—to speak them, in fact, as the master himself would speak them. Instead of permitting them to say, for instance, 'Hie—thee—home—from—school,' pausing after every word, as they do now, they must be accustomed to say, 'Hie thee home—from school.' And this they can be taught to do by the master's repeating *for* them, or *along* with them, the words in groups as they ought to be repeated, and encouraging them to do so too. A few trials will produce the desired result, for children are wonderfully quick in imitating.

---

[1] Min. of Council, 1846, vol. ii. p. 412.

This now neglected.

This grouping of words, although of vital importance, is almost wholly left without any special attention, and on this account pupils of the junior classes can scarcely be said at present to *read* at all. When I say this, I make a distinction between the mere naming of words in their order, which is sometimes, but erroneously, called reading, and *the naming of them in connected groups in accordance with their sense*, which alone is entitled to be so called.

Mr. Sheehy's opinion of reading in the primer class.

Mr. Sheehy, Inspector of National Schools, Ireland, says: 'When I examine the junior classes, I find that the children repeat the words in the one tone of voice, accent all equally, pause and nod after each word, and seem not to know what they read about. In fact,' he adds, 'their reading resembles very much the reading in time of a piece of music consisting of crotchets and crotchet-rests alternately.'

This want of grouping natural with young children, if unaided.

This hesitation is certainly very natural with children, for when struggling with the difficulties of distinguishing one word from another, they must fail, if left entirely to themselves, to pronounce them in groups. It is probably because that it is natural, and very probably also from supposing that there will be time enough to remedy it as they advance, that the junior classes are so much neglected in this respect. But let those teachers who act thus remember that they are not only grossly neglecting the duties they have undertaken to discharge, but they are laying up for themselves a mass of trouble from which they can scarcely ever afterwards free themselves. For, as Mr. Sheridan says: 'The habits

It must not, however, on that account be neglected.

Mr. Sheridan on import-the pupils acquire while learning the First Book accompany them into the higher classes, *and once contracted are never thoroughly cured.*'

ance of attending to it early.

But it is neglected, even in the senior classes.

But even in the senior classes, where one would think it certainly would be attended to, if attended to at all, it is too frequently quite neglected; yet this defect does more to destroy the perspicuity of the language, and mar the reading, than any other. In some cases, indeed, the disagreeable effects of erroneous grouping force themselves too strongly upon the teacher's attention to permit him to overlook them altogether, but the remedies applied convince one that the true cause is unknown. The child is told 'to read more quickly' or 'more slowly,' or to 'mind the stops;' but in the majority of cases, when these instructions are given, the defect is not so much in the slowness or rapidity of utterance, or in neglect of the printed pauses, as in that wrong collocation of words of which I am now speaking.

Teachers do not appear to see that wrong grouping is the chief fault.

Take, for instance, the following:—

'With one knee on the grass did the little maiden kneel.'

A slow and hesitating reader would group the words somewhat thus:—

'With one—knee on—the grass—did the little—maiden—kneel.'

While a quick, but inexperienced reader, would on the other hand join them something like this:—

'With one knee on the grass did the little—maiden kneel.'

In such cases it is clear that the defects are neither slowness nor quickness, for, in the one, the reading may be made quicker, and, in the other, much slower, without becoming more correct, or more pleasing. Neither will the command, to 'mind the stops' be of any advantage, for there happens to be no stop in the line at all.

'Try again.'

Sometimes the child is told to 'try again,' and, probably, after another failure he may be required to make a second, or even a third effort; but to tell a child to read any passage in which he has signally failed, without showing him in what his errors consisted, or affording him a means for correcting them, is like telling him to work an arithmetical question for whose solution he has not yet seen any established guide. Mr. Fussell says:[1] 'Few things are more painful to me than to see the energies of a young teacher frittered away after this fashion. A child reads a sentence—he commits gross faults. "Read it again," says the teacher. He reads it again, and, as might be expected, he reads it very much as at first. "Read it again," says the teacher; and so on. It does not seem to enter into the teacher's conception that his own labours, and the child's too, would be immensely lightened if he would but tell the child what his faults are, and *why* he was to read it again.'

Mr. Fussell.

This is a worthless system of teaching.

Such teaching is worthless; nay, it is more, for a system that begins and ends in *a command to improve* is not only worthless, but it is absurd; and had it been applied to grammar, geography, arithmetic, or any other subject but reading, it would long ago have been discontinued. How it came to be applied so long to reading, without being questioned, is more than I can well account for.

Only true plan is the application of the rule of imitation.

The only true remedy is in the application of the rule of which I am now treating—reading the sentence as it ought to be read, so that the child may possess something tangible, by means of which he may discover and correct his errors. Without this, 'mind your stops,' 'read slower,' or 'quicker,' &c. will be valueless; and 'to try again,' may, indeed, produce a difference, but it can, only by accident, produce correctness.

[1] Min. of Council, 1857-8.

In applying the rule to the primer class teachers commit two faults.

There will be little difficulty in applying this rule to the senior classes, but in its application to the primer class I find that teachers fall into two faults from which they ought to keep free. (1) In their anxiety to make the pupils join the words together they permit them to read very rapidly, and without any pause until the end of each small sentence, thus making, in fact, one group out of what ought to have been several; (2) Or they make the pauses too long and too marked. Thus they either read the sentence 'Hie thee home from school,' as if in one breath, or else they make as long a stop after the word 'home' as if the sense was completed there.

1. Do not pause.

2. Pause too long.

Little sentences by rote.

I find also that after a little the pupils get the sentences by rote, and actually repeat them without looking at the words. To remedy this they should be called upon first to name single words selected at random through the lesson, and when they can do so rapidly and correctly they should then be taught to read in groups as explained. In some schools tablets are used from which to teach this class. In such cases the pointer must be used with judgment, for I find that a good deal of the disconnected reading in the lowest classes is owing to the way in which this instrument is handled. The master points to one word after another, and, as a consequence, the child, in following the master, pauses equally after each.

Remedy.

How to use the pointer.

Instead of this, the pointer should merely indicate the sentence to be read, or, what I have sometimes seen tried with advantage, it should be made to pass rapidly over the words which form a group, stopping after each group so long as the master thinks correct. Thus, with the sentence, 'Hie thee home from school,' the teacher may either say, 'Read that,' or he may pass the pointer over the words 'Hie thee home,' pausing a little after 'home,' and then passing it over the remainder. Thus he indicates each group, each pause, and its exact duration.

By a careful adherence to this rule of imitation the children will very soon pick up the general features of the master's style, and, in many cases, also, even its minute characteristics, but there still may remain special faults which can be removed more quickly by some special additional remedies.

Special faults may require special remedies.

Indistinctness is a fault of this kind.

Evils of it.

Indistinctness is a fault of this kind, and requires careful attention not only from its effect in marring the efficacy of reading aloud, but from its striking at the very root of all progress in public schools. Every child when reading is supposed to be conveying instruction to his class-fellows, and when answering he is contributing to the common fund of information; but it is clear, that when his utterance is indistinct—when he is not clearly heard—a vast amount of time is wasted, a vast amount of knowledge lost, and the good effects expected from class-teaching are destroyed.

Inaudible speaking, one cause of.

Pupils are inaudible very frequently from being permitted to stand with their heads down, with their chests cramped, and in other attitudes in which to speak clearly is almost an impossibility; the teachers seemingly unconscious of the fact that, unless the organs of speech have fair play, unless the body is erect and firm, not only will the child always speak at a disadvantage, but his very mind itself will grow languid and listless. In all cases the child should keep his head well up, his chin and breast well forward; he should stand firmly and uprightly, and hold the book so as not to stop the flow of sound. If held before the mouth, as it sometimes is, the voice is checked considerably.

Remedy.

Another cause.

Sometimes, however, pupils are inaudible simply from carelessness and from bad habits early contracted. In such cases it is more difficult to effect a cure. The best remedy I have met with—one, indeed, that I have scarcely ever known to fail when intelligently applied—is to place the child at a considerable

Remedy.

distance from the teacher, generally at the opposite end of the room, and to encourage him to pitch his voice so as to be heard from it. In such a case nature assists the child in acquiring the true pitch, and by a little care and exactness on the teacher's part, the child will soon succeed in making himself clearly heard. He must then return to his class, and be called upon to read *with the same tone that he made use of when at a distance.* In his efforts to do this he almost invariably succeeds in adopting the very tone he ought to make use of in his class, for a consciousness of the change of position tempers down the high tone to the true standard.

Remedy when indistinctness is caused by slovenly habits.

Indistinctness, however, may proceed from muttering or mumbling the words, from slurring over their final syllables or letters, or from running one word into another, as, for example, 'he fired with so sure an aim' may be read as if it were 'he fired with so sure a name.' When it is thus the result of slovenliness of speech, a different remedy must be applied. The master must read very slowly for their imitation, making them read very slowly also, sounding each word clearly and by itself, but paying most attention to the ending syllables of each. A little practice in this way will produce clearness and distinctness, but accompanied with a considerable amount of disconnectedness. Ease and fluency must be afterwards acquired by the proper methods.

Irregularities of tone are also special faults. Described.

Irregularity of tone is another of those special faults. When the tone is 'irregular' it may be either too high or too low, or, if in the natural or speaking key, it may be dull and monotonous. It may also be accompanied with a kind of cadence or intonation, giving to the reading a character between speaking and singing. This is produced by either abruptly stopping at the commas, or else by raising and prolonging at them the voice, and it sounds, to my ears at least, most disagreeably.

Rule of imitation will apply.

To encourage the child to catch the tone in which you read yourself is one remedy for this fault, expertness in doing this depending, of course, very much upon whether his ear is naturally sensitive or not. If he have a good musical ear he will have but little difficulty.

Another remedy.

The best plan, however, is to make him speak the words, as he would in conversation, without looking at the book. For this purpose the general meaning of the passage should be explained to him, he should commit the words correctly to memory, and he should be called upon to repeat them verbatim to you—or, better, to one of his class-fellows. In doing this he will almost insensibly adopt the natural or speaking tone. When you find that he has done so, permit him to use the book, and the defects will gradually disappear. In most cases, indeed, at first the tone, when using the book, will differ from that when the book is closed; but this difference will diminish with every trial, until at last it will become almost imperceptible.

If familiar sentences were used in the first case—such, for instance, as the ordinary forms of salutation, the school rules, sentences about the weather, &c., which the child is in the habit of using himself, or of hearing others use—his attention could be more forcibly drawn to the difference between his manner of speaking and reading. But, whatever sentences are used, he will, by careful attention, gradually come to perceive that the more nearly reading approaches in style to speaking the more correct and pleasing it is deemed; and thus the truest standard of reading will be realised by him, and at all future times, when in doubt, he will recur to it. He will ask himself, 'How would I speak this sentence?' and he will try to imitate that when reading.

To read writing is another plan.

Another plan is to get him to write down any passage he may think of, and to call upon him to read his own writing. He will invariably do this more naturally than if called upon to read print. This, moreover, is an exercise which possesses an intrinsic value of its own, for to read manuscript is always of considerable importance in our progress through life. As many children at present never learn to read it at all, and some of even the most advanced find great difficulty in doing it, I strongly recommend that even the very youngest should practise it. The Rev. Mr. Kennedy is also of this opinion. He says:[1] 'It is not the practice of any school I have seen in this district to teach children to read hand-writing. This, however, might be done with advantage at an early stage, for some children who leave school never acquire this power. The learning to write the alphabet should be practised simultaneously with the learning to read it, as these two processes are a great mutual help.'

This has an advantage of its own.

Mr. Kennedy.

That plan of reading which is called simultaneous,[2] when properly directed and kept within due bounds, is another very admirable remedy for these special defects. It consists in the joint reading of the master and his class, or of the class alone — all keeping time, as it were, and training their voices into harmony with each other. Such an exercise derives its value from its tendency to create a uniformity in the reading, and to oblige the entire class to take the tone from the most proficient. It therefore checks quickness, and gives confidence and firmness to those who are hesitating. It secures body of voice, removes those tones which are unnatural, monotonous, or accompanied with a cadence; while by the very effort which all are obliged to make to keep up to the true standard,

Simultaneous reading another remedy.

Described.

Its advantages.

---

[1] Min. of Council, 1849-50, p. 180.

[2] For remarks upon simultaneous reading, see Min. of Council, 1846, vol. ii. p. 87; 1851-2, pp. 275 and 1079. Also the works on school education, by Currie, Gill, Woods, Dunn, &c.

and by that sympathy which must exist throughout the class, distinctness of utterance is necessarily produced. Mr. Stokes says also of it,[1] that 'it shortens the process of learning to read, and produces, in good schools, a commendable correctness, which in a few cases rises into elegance.' It must be remembered, however, that these are about its chief advantages, and that the highest excellence in reading must always be the result of well-directed individual effort. It should not, therefore, be too much practised or relied upon, except for the removal of the faults with which it is intended to deal.

The highest excellence, however, is the result of *individual* effort.

Two conditions to make all these suggestions fully valuable.

1. The errors must be detected; and, 2. Reading must be largely practised.

Detection of errors are not made by the teachers.

But that all these suggestions may have their true force, two things are essentially requisite: (1) That the errors themselves are detected; and, (2) That reading is sufficiently practised. (1) The first may appear, by a casual glance, to be too much of a mere truism to deserve special mention; but, upon reflection, it will be found that the non-detection of error has probably more to do with the bad reading which admittedly prevails than any deficiency of special remedies within the knowledge of the teachers. Teachers are, as a body, intelligent, hard-working, and zealous; and as they must recognise the importance of reading, it is clear that, with these qualities, they would long ago have improved it, or taken steps to improve it (neither of which they have done), had they been conscious of the defects. No doubt but that, in some cases, a want of ability to invent remedies, or a want of zeal in seeking and carrying into practice those already invented, are the chief sources; but, as a rule, reading is bad simply because the defects which are continually brought before the teachers *do not make themselves felt.*

Two reasons for this.

It may be asked, how is it that, if capable of judging of them, they do not notice them quite as well as an inspector or a manager? In reply, I think it may fairly be said, (1) That, from being accustomed to the frequent repetition of the errors by the children in their presence, they insensibly but naturally cease, after a short time, to notice them; and, (2) even supposing that this was not the case, the habit, which nearly all teachers have, of reading the lesson conjointly with the child places them in the very worst position possible for doing so.[1] For no master can be a competent judge of how the reading of his children will strike the ear of a stranger (which is the best test for reading aloud), so long as he himself is following the words not only with his ears, but with his eye. In such a case, both of these organs convey impressions to the brain, which it is almost impossible to avoid confounding.

---

[1] Min. of Council, 1856–7, p. 610.

1. Senses dulled by habit.

2. Looking upon book while the pupils are reading.

Masters thus really *know* what the pupils ought to be saying; and, by mistaking that knowledge for actually *hearing* what they say, they very often pass over errors of expression, of punctuation, and of intelligent grouping. Besides, when following the book, they cannot note properly the general attention of the class, nor the countenance and bearing of the reader himself; and, to omit these, is to neglect an important part of their duty. These evil results follow with more certainty when the master, as is frequently the case, is engaged, when poring over the book, not in following the reader, but in thinking of what question he will ask when he is done.

Evils of this.

The best course to adopt is to close the book (keeping, however, a finger between the leaves, for ease of reference), and, standing at some considerable distance, to make the ear the sole judge. That this organ may be a true judge, however, it is necessary that the master should seek every opportunity of hearing good reading, and so free himself from

Remedy.

---

[1] Report of Education Commission, 1861, vol. i. p. 254; Min. of Council, 1852–3, p. 70; 1857–8, pp. 381 and 391; 1860–1, p. 170.

the evil effects of the atmosphere of routine and custom in which he lives.

Pupils to become mere listeners also.

It is also an excellent plan to make the whole class occasionally form themselves into mere auditors. The reader will thus find that he must speak clearly, distinctly, forcibly, and naturally, if he would have himself understood; and both he and his class-fellows will learn what the objects of reading aloud are, and in what its excellencies consist.

This is a severe test for small children.

Must be applied.

Better to prevent than cure.

This will, no doubt, prove, in the present state of the classes, a very severe test for the junior children, but it is nevertheless the master's duty to apply it early, for he must remember that, from a want of early attention to the formation of good habits, he is now obliged, too frequently, to occupy his time in *curing* those faults that, had he adopted proper means in proper time, he would have had only *to prevent.* Incorrectness of utterance, apathy in speaking, general listlessness of manner, inattention to what is read, monotonous tones, cadences in speaking, &c., all have their rise in sources scarcely discernible at first, but they grow upon children if permitted, until it is scarcely possible to cope with them. In these cases, therefore, as in most others, 'prevention is better than cure.'

2. Reading must be taught as a *distinct* lesson.

(2) To give the suggestions full force, reading must be practised for itself and by itself,—*it must be practised, in fact, as a distinct lesson.*[1] At present, the time of the reading lesson is occupied with reading, spelling, meanings, subject-matter of book, and, sometimes, etymologies, grammar, and geography. Among so many multifarious subjects the actual practice of reading is exceedingly little, especially so if the classes are large; and, therefore, one of the most important rules about good reading,—*that to read well we must read much,*—is violated. Besides, so

---

[1] Min. of Council, 1852–3, p. 70; 1854–5, p. 629; 1855–6, p. 707.

long as it is not the immediate object of the lesson, it will be exceedingly difficult to fix the child's attention satisfactorily upon it and upon your remarks as to its improvement; and without this, the character of the reading must necessarily continue of a very low order.

Some inspectors say that every class should receive *four* lessons daily; some *three*; and some *two*; but all agree in saying that *one* lesson at least should be set apart exclusively for mere reading.

During this time the portion to be larger.

During this time the portion allotted to each boy should be large—in fact, it cannot be too large consistently with the time allowed—not only for the purpose of giving greater practice in reading, but also to accustom him to that continuous and connected reading which aims at taking in the *whole* of the subject, and which he must follow in his more matured studies. The lessons selected should be those with which the children are most familiar, so as to secure the greatest freedom of expression, and to occupy little time in the explanations of such words and phrases as it will be found necessary to explain in order to make the reading forcible and intelligent.

The most familiar lessons taken.

Must read poetry.

During this time, also, they should read a great deal of poetry; the junior classes from their ordinary reading-books, and the more advanced from good authors, or from good selections from their works. With the advanced classes, the object should be, not so much *to learn to read*, for this they ought to have acquired already, as to *improve in reading*, and I know of no better way to do this than to read poetry extensively.

When read and recited well, it tends to produce expressive reading, in the highest sense of that term; it also has a powerful effect in awakening the feelings and in inculcating *sentiment*—one of the most important agents in the formation of character. But that it may be of any advantage, due regard must be had to the repetition. All errors of affectation, exaggeration, hurry, &c., must be carefully watched and removed. The speaking must be clear and distinct, with as little musical intonation as the nature of poetry admits of, and that attention must be paid to the modulations of the voice which is necessary to bring out, not only the true meaning, but the true *feeling* also.

It will be noticed that the suggestions up to this refer almost solely to expression and utterance, and relate, in but a secondary way, if at all, to the comprehension of the text.

Intelligent reading—its importance.

It is now my duty to deal with this, the most important part of reading. It is important, because 'the foundation upon which every system of intellectual instruction must rest, is the ability to read with ease and intelligence, so as to evince a clear conception of the subject,'[1] and because when attained, all other excellences in reading either follow of themselves, or are more easily acquired. Intellectual reading, however, is not only valuable in itself, but, inasmuch as it is an exercise which requires a due appreciation of the ideas, as well as of the peculiarities of the language used in their expression, it proves, in the hands of a skilful person, a very powerful means for developing and strengthening the mind. It is, moreover, the best test of intelligence.

'Meaning of words' at root of it.

As the meaning of the entire sentence depends upon the force of the words made use of, that exercise which has for its object the explanation of those words must necessarily lie at the very root of this branch of our subject, and therefore, naturally, it demands our first consideration.

Object of this exercise.

This exercise seeks to make the text intelligible by translating its imperfectly-understood phraseology into a language of more ordinary use,—by breaking up, as it were, the rough lumps into more tractable materials,—and therefore, the more completely a teacher substitutes familiar words for those that are difficult, that is, unusual, the more fully will he be performing his duty.

---

[1] Mr. Fleming, Head Inspector of National Schools, Ireland.

Rough words in ordinary use may therefore be taken from the junior classes;

It is, therefore, injudicious to require the children during this exercise to be very particular in the choice of those words which they give in the explanation of others. I would draw a distinction, however, in this respect between the two divisions of the school. From the junior section, because the children have not yet had sufficient opportunities for getting up a good vocabulary, I would accept the words commonly used by the uneducated, but from the senior classes something higher, I think, ought to be expected. They should convey their explanations not only clearly and definitely, but in neat and correct language, not, indeed, to render their meaning more easily understood—for many of the rough words current among the unlearned cannot be exceeded for terseness and force—but to give them the habit of using the more canonical words of our language.

But more accurate language must be got from the others.

Why there is a difference.

Their acquaintance with the words and style of the advanced lesson-books, the improved taste and the increase of ideas consequent upon their progress through these books, naturally point out why a difference should be made, in this respect, between the senior and junior classes.

This exercise badly conducted at present.

This exercise is very badly conducted in schools at present.

1. Joined with spelling.

(1.) *It is, for the most part, connected with the spelling rather than with the text of the reading-lesson.* The very nature of the exercise ought, however, to show to those teachers who adopt this course that it has no more connexion with spelling than grammar has, which they also join with it. Mr. M'Creedy, Chief of Inspection, calls this the old and

Mr. M'Creedy.

absurd system, and regrets that it is still practised in a large number of schools. He says, 'I may here mention, that in a large number of schools, the old and absurd system is persevered in, of teaching the meanings of words in connexion with the spelling—in which the sense is unsettled and arbitrary—rather than with the reading exercise, or, more properly speaking, with the analysis of the text of the reading exercise, where only can the words of the lesson have their meaning properly determined by their application.'[1]

2. Dictionary meanings—error of.

(2.) *The meanings given are also, too frequently, the mere meanings contained in a dictionary.* But such are almost worthless in securing the object in view, as they are generally less familiar to the children, and much more difficult of comprehension than the words they seek to explain. Take, for instance, the following meaning for 'network,' extracted from Johnson's Dictionary:—

> 'Network, is anything reticulated or decussated at equal distances, with interstices between the intersections.'

This may be very accurate, but fancy the puzzled expression of a poor child after reading it!

The fact is, that the functions of a teacher and a lexicographer are so very different, that a dictionary must be used with great caution. The one seeks solely to explain, the other to define; the one sacrifices precision in his desire to be easily understood, the other sacrifices clearness because it may sometimes prevent his being rigidly exact. The meanings required by a child *may* indeed define, but they *must* interpret, and this they cannot do if couched in unusual language. The children, except some of the most advanced, ought not, therefore, to consult a dictionary at all. The master himself must be their book; and although he may be obliged occasionally himself to consult a dictionary, he must, as a general rule, use his own language only in all the explanations which he gives to his children.

---

[1] Reports of the Commissioners of National Education, Ireland.

3. Meanings of the words at top of the lessons.

(3.) *In some books, there are small columns of words drawn out at the commencement of each lesson. Where this is the case, the teachers confine themselves almost entirely to these.* Their practice is, either to tell the children the meanings of these words before reading, or else to give dictionaries into their hands that they may find them out themselves. By such a course, the pupils are forced to get the meanings of many words of little or no importance, simply because contained in the columns, while many words upon which the whole sense of several of the passages in the text may depend, are passed by unexplained.

Error.

Such a system, moreover, is ineffectual, unintellectual, and laborious. It is *ineffectual*, because, as the dictionary gives many meanings, the children are left in the dark as to which of them they should select. It is *unintellectual*, because its tendency is to produce mere rote answering, the children in general getting the credit of understanding what they repeat with fluency. Fluent repetition and intelligence do not necessarily, however, go together. What knowledge, for instance, could a child, who never saw a *package* of goods, or heard of a law court, possess of the real meanings of the words *bail* and *bale*, even supposing he could repeat readily and correctly that,

It is ineffectual,

Unintellectual,

> Bail, was a surety for another's appearance in court, and Bale, a package of goods?

The system is also *laborious*, for it forces the memory to deal with disconnected and uninteresting facts.

And laborious.

The following opinions may be of advantage in support of these statements:

Opinions.

1. 'To say that it would be impossible to remember definitions thus abstractedly learned, would be to assert what must be perfectly obvious to everyone;

and, even if they could be remembered, they would be of little utility; for, as the right application of a definition must depend entirely upon the situation of the word to be explained, and the office it performs in a sentence, the repeating of half a score of meanings as obscure, perhaps, as the word itself, conveys no definite thought, and serves rather to darken than illuminate the mind.'[1]

2. 'Merely the learning to spell unconnected words, without any assistance from reason or analogy, is nothing compared with the difficulty of learning the explanation of them by rote, and the still greater difficulty of understanding the meaning of the explanations.'[2]

Errors of carrying it out, but which do not belong to it.

Those who adopt this custom make it worse (1) by allowing the children to run the several meanings into one. Thus, for the words 'hue,' 'metre,' 'lacks,' &c., they permit them to say, *a colour dye*, 1. *a measure verse*, *wants needs*—the two meanings being repeated together without the pause which the 2. sense requires; or (2) they think it their duty to give a meaning for every word, quite overlooking the fact that many words do not admit of being expressed more simply by others. Thus they give the meaning of 'twittering' (making a sharp, chattering noise), of 'singing' (musical articulation), of 'chirping' (the cheerful noise of birds), and fancy that they have explained them. Instead of this, how much better would it be to refer the children to the noise of the swallow, or of the sparrow, for the explanation of 'twittering' and 'chirping,' and to sing a note or two, or get some one else to do it, for the explanation of the other![3]

---

[1] Thayer's Lecture on Spelling and Definitions.

[2] Edgeworth.

[3] Dr. Cumming (Min. of Council, 1846–7, p. 665) thus writes on the same subject:—'When the interpretation consists in the substitution of one synonymous term for another as unintelligible as itself, no progress is made in

'*Meaning*' not so good as '*application*.'

The word 'meaning' is a bad one, and has led in a very great degree to the erroneous system of teaching at present in force. If teachers would discard it, using in its place the word *application*, they would avoid many faults. They would avoid (1) the fault of giving many applications; (2) of giving any but the one necessary to explain the text; (3) of giving it where the word is not applied at all; (4) of endeavouring to give the application of words whose application and force were already familiar to every child; or (5) of defining by other words, what can be illustrated *practically* with more advantage. Of this species of illustration I have already given an example above. The following is quoted from Mr. Norris's Report for 1861 (Min. of Council, page 84), as it not only explains this method, but forcibly contrasts it with the old and rejected one. He says, 'Go into a school and listen to an old-fashioned pedagogue, with his "Tutor's Assistant" on his desk, trying to explain such a word as *redeemed*. "*Redeemed* means bought back, *re*, back, and *demere*, a Latin word for *to buy*." Now what is *redeemed?* "Bought back." Yes, go on; and so the poor children do go on, asking for bread and getting a stone.'

Faults from which the use of the latter word would free the teachers.

Explanation of words practically.

Mr. Norris.

'Now let one of the trained teachers take this class. . . . By picturing forth to the children a poor man, who, by his own misconduct, has fallen, from bad to worse, till he is now in prison; and how

enlarging the mind of the pupil. If a child reads such a line as,

"Darkness overspreads us here;"

it may be made to understand how "*darkness*" conveys the notions of ignorance, perplexity, danger, with anxious fears and sadness of heart. But if, instead of this, it be merely taught to say that "darkness means *obscurity*," and this is scarcely an exaggerated instance of some of the meanings referred to—it is plain that all that it has acquired is some notion of the import of the word "obscurity," without the slightest help in comprehending the original clause.'

a friend comes, and, seeing there is still some good in him, pays all his debts, and sets him free; and, taking him into his own service, into his own family, gives him a new start in life — he awakens the children's understanding, and fixes in their minds an association with the word "*redeemed*," which will cling to them for many a year.'

True system is to teach them in connexion with the text, and before the reading.

The true system of conducting this exercise is to teach the meanings of words in connexion with the text, and, as its true office is to assist in the comprehension of the text, it should, in my opinion, *precede the reading.*

Examples.

The children should, when called up to class, be directed, in the first instance, to open their books and follow the master line by line as he proceeds through the lesson selecting the words for explanation. The method which I recommend for the actual explanation of the words so selected, will be best learned from an example. Take, for instance, the following sentences:—

'The particular favourite of Jacob among his twelve sons was Joseph, the eldest child of his beloved Rachel. This excited the envy and hatred of his brethren. These feelings were increased by reports of their misconduct, which he brought to his father, and by two dreams which he had, indicating his future greatness.'

The questions might run somewhat thus:—What is meant by the *favourite* of a person? What sort of a favourite is a *particular* favourite? What child is the *eldest* child? What is meant when it is said that Rachel was *beloved* by Jacob? When is a person said to *envy* another? When to *hate* him? What is meant by *exciting* these feelings? What by *increasing* them? &c. &c., always *applying* in the question the word whose meaning is required.

And sometimes he should mingle with his explanations of single words explanations of whole *phrases*;

as, for instance, suppose the lesson for the day was on 'the salmon,' which in the Graduated Series, by Longman & Co., book iii., opens thus:—'Of the genuine salmon, we believe there is but one distinct species. From its lithe beauty, its wonderful activity, and its value as an article of food, it unquestionably takes precedence of all fish that swim in our waters. The variety of which we speak is a slender fish, particularly solid in texture, and has a small head and delicate fins,' the teacher may say what is the force of the expression '*the genuine salmon*' (sketching out the doubts to which it gives rise)? What is meant by a *species* of fish? What by a *distinct* species? What by the expressions '*its lithe beauty*' and '*wonderful activity?*' What is meant by '*taking precedence of other fish?*' What by *unquestionably* doing so? What is meant by the word *slender*, as, for instance, 'a *slender* rod,' 'a *slender* fish?' Explain the phrase '*the salmon is extremely solid in texture.*' Meaning of *delicate*? What is its meaning when I talk of a *delicate* child? &c. &c. Thus going through the entire lesson, with more or less of minuteness according to the age and proficiency of the children who constitute the class.

After this exercise, the pupils should proceed to the actual reading, which they will then be in a position to understand, and, understanding, to make expressive and correct. After reading they should recur to the previous explanation to see that it is remembered.

Errors in carrying true system out.

In carrying out this plan I have found that teachers are liable to the following errors:—

1. They read the passage themselves aloud, then ask the meaning of one word, and thus fancy that they are teaching the meanings 'in connexion with the text.' Thus, in the foregoing lesson they would read, 'Of the genuine salmon there is, we believe, but one distinct species,' and then ask, 'what

is the meaning of *species?'* This is a waste of time, for, when the children are following the reading, there is no necessity for the master to read to them; and, as it is virtually asking the meaning of isolated words, it differs from that plan which confines one to the little columns of the lesson, only in being more *troublesome* — the master selecting the words himself, instead of taking those selected for him. All that is in reality required is to frame the questions so that the force or application, as it is in the text, of the word to be explained, will be made clear to the children; and this can be done very often much better by using a phraseology different from what is in the book before them. An instance of this is given above, in the words 'slender,' 'delicate,' &c.

Remedy.

2. 2. They consume time unnecessarily in finding out what word they will ask, or in determining upon the form in which they will ask it.

3. 3. They very frequently ask the meanings of words of secondary importance, and pass over those upon which the sense of the paragraph turns.

Remedy for 2 & 3.

The remedy for both these faults is to be had in a careful previous preparation of the lesson. The teacher should provide for his own sole use a set of class books, and he should, from time to time, mark in these all words requiring explanation. When this is once done, no further trouble will be required, except, probably, to distinguish the most important by some peculiarity of marking, as, for instance, by using in their case red ink, instead of black, or drawing under them two lines instead of one.

4. 4. They are not sufficiently minute in their selection of words; they take it too frequently for granted that the pupils understand the words when they can read with rapidity and ease, and answer questions upon the general meaning of the passage. The fallacy of this is so well illustrated by Dr. Woodford, that I cannot refrain from quoting him in

Fallacy of thinking that the

words are known whe the drift of passage is known. Dr. Woodford's example.

full. The lesson selected was on '*The sagacity of insects in providing for their offspring*;' and he says,[1] 'It was thought by some intelligent visitors, that, from the way in which the children had answered upon the lesson, it was manifest that they understood the words. I was inclined to think so too, but was yet willing to try. The class was asked to say again what all this lesson was about. "The sagacity of insects," was shouted from almost every voice. *The sagacity of insects, in what?* "In providing for their offspring," was the equally ready reply. *Then what do you understand to be the meaning of the word sagacity?* No answer, except the repetition by some of "the sagacity of *insects*." It was here suggested that sagacity is an abstract term, and cannot therefore be easily defined, though its meaning in a sentence may, as appeared in this case, be quite well understood. It was admitted that this might be the case to some extent, *though it is the safest* (for a teacher) *to assume that what cannot be expressed or clearly indicated in some way, is not very clearly understood.* The class was again asked to explain in some way what they understood by the "*sagacity of insects;*" *was it, for instance, their food, their colour, or their shape, or was it something altogether different from any of these things?* To this the *Dux* was pressed to give some answer or other, and he said, "It was *their food*;" and the rest of the class concurred!'

Remedy.

The only remedy for this is to be found in the teacher's own judgment, and in his knowledge of the defects of his children. Let him, however, always remember that the poor know little of written language, and that, as a consequence, many words familiar to him as his own name, are to his children as unintelligible as Greek or Latin.

---

[1] Min. of Council, 1860-1, p. 215.

Before leaving this subject I may remark that I have treated it solely in reference to the explanation of the text of the reading lesson. It has, however, another and an important use, namely, to increase the vocabulary of the children, and give them a command over the language.

This exercise has another use.

When this is the teacher's object he must proceed, of course, differently from what I have already directed. He should insist upon getting from the children (or telling to them) *all* the meanings which the word admits of, and, in every case, he should cause them to frame sentences of their own, illustrative of each. If he rely upon the mere repetition of the meanings, as given in a dictionary, he will produce rote answering, to which all children are exceedingly prone, and he will fail to convince himself that they really understand what they say, or could apply the words correctly when occasion offered.

How to conduct it then.

It is a good plan also to require them to trace the connexion between the *primary* and the several *secondary* meanings of each word, for this not only improves their knowledge of language—thereby ensuring correctness and precision in composing—but it makes thought itself definite and exact, and enlarges the understanding.[1]

This exercise not sufficient of itself to produce intelligent reading.

One would think that to explain the words of any lesson would be all that was required to make that lesson fully understood; but those who are acquainted with the difficulties of making children grasp what they read, know too well that the way is only then prepared for the intelligent comprehension of the text.

Analysis necessary.

The sentences themselves must be vigorously analysed and their connexion with each other clearly explained.

---

[1] For further remarks on 'meanings of words,' see Min. of Council, 1845-6, vol. i. p. 230, and vol. ii. p. 323; 1846-7, vol. ii. pages 83 and 389.

To prove that this is necessary take, for instance, the following extract:—'How this came about seems very wonderful, but as the same thing is still going on in the world, people who have carefully attended to it, are able to tell us how it happened.' **Why.**

It is plain, that no matter how well a child may know the meanings of each of these words, he will still be unable to comprehend the drift of the passage, unless, in addition, he knows to what '*this*' relates in the expression, 'how this came about,' and can tell to what *thing* allusion is made in the phrase 'the same thing,' and for what '*it*' stands in the two places where it occurs.

The difficulty may arise also from some peculiarities of expression. For instance, 'the knowledge of birds is called ornithology,' has led many children to think that it is the knowledge which birds actually possess which is so called. In the phrase, 'The land is before thee,' the word '*before*' is not used in its customary sense of expressing the opposite of the word 'behind,' and therefore needs special explanation. And again in the sentence, 'Geography does not tell us what the land and water are *in themselves*,' the children may be quite unable to form any idea of what it is intended to express by the two last words. It may be said, indeed, that these extracts are themselves of faulty composition, and should not therefore occur; but the teachers must be prepared to deal with what actually *does* occur, and not with what *ought* to occur. And so long as books are to be compiled for children's use, so long will they contain phrases of this kind.

How to conduct this.

It is therefore the duty of the teacher to test by suitable questions, in every case of which he has any doubt, whether or not the pupils fully understand what they say. The form of these questions will be easily seen from the nature of the difficulties themselves. I can give no hint for the detection of peculiarities of expression; this each teacher will do more or less efficiently, just as he is more or less of a reading man, and conversant with our literature; but with regard to the other, I may remark generally, that the difficulties will be found to depend chiefly upon the pronouns and connecting words. The teacher must therefore see that the force of these, especially, is understood.

This must not be confounded with questions on subject of book.

Such an exercise as this must not be confounded with questions on the subject-matter of the lesson, though it is, of course, most intimately connected with it. It however resembles, as will be seen, more nearly a preparatory parsing exercise, and forms, indeed, a most admirable foundation for the intelligent comprehension of that science.

During the time when reading is taught as a distinct lesson, there should be very little of this analysis, as the object then is to acquire fluency and correctness of expression; but at other times it should be frequently resorted to—with the junior classes, however, much more frequently than with the senior.

To be with open books.

And as its object is not to test what the children have remembered, but simply what their reading has enabled them to understand, it ought to be carried on with the open books before them.[1]

---

[1] The following remarks of Mr. Moseley (Min. of Council, 1845, vol. i. p. 229) will be of advantage. Writing upon the necessity for analysis, in addition to the ordinary explanation of the words of the book, he says, 'I have found that a knowledge of the meanings of the words which compose a sentence, however precise and accurate, does not necessarily imply an intelligence of the sentence. And from my own experience, I am disposed to think that the severest test to which the children of a national school can be subjected, is to place in their hands some book of secular instruction, to select a sentence not remarkable for the simplicity of its construction, and to try how far they understand it. If they be subjected to the further test of conveying the meaning they attach to it, under correct forms of expression, the failure will be signal. Yet are these important elements of a course of instruction in reading adapted to the wants of the labouring classes. . . .

With the junior classes the reading *may* be interrupted for the purpose of analysis, but with the seniors it is better to ask no question whatever until the child has completely finished.

But little interruption of reading, however, permitted.

The previous rules are sufficient of themselves to produce good reading, but as many teachers mar their efficacy by some special faults, it is necessary to point those out in order to make my subject complete.

Interruptions to be generally avoided.

As reading to be good must be expressive, must be connected, and must make sense, all interruptions, of whatever kind, must tend to injure it, and therefore, when they are permissible at all, it is only as a choice of evils. *Avoid interruptions* is therefore an important general rule. It is one, however, frequently violated by teachers; but, I must say, that they do so with the best motives. They are continually interrupting the reading to make corrections, or to ask questions upon the subject-matter of the lesson. Now, though corrections and explanations are valuable and essential, they become injurious, if ill-timed or misplaced.

They are not so, by teachers, at present.

Interruption to produce

When a child, at present, makes a mistake, we may

'This is not to be done at school by the rules of grammar, valuable as these are in their application to the purposes of elementary instruction; nor yet by directing the attention to the derivation of one language, with which they are comparatively unacquainted, from another, of which they are profoundly ignorant, nor by endeavouring to gather the recollections of a reading lesson which they have not understood; but by examining them on the construction of its sentences, and its subject-matter, with their open books before them; and by directing and encouraging their efforts to convey the ideas they associate with it in precise and accurate language.'

The following is an extract from a circular letter to Her Majesty's Inspectors of Schools, dated October 16, 1852 (Min. of Council, 1852–3, p. 70).

'It is unnecessary to remark that the power to read well does not depend upon distinct articulation, correct accents, and a certain exertion of the voice only: it depends also, and principally, *upon an intelligent analysis of the several parts of every sentence*; upon the distinction of subject and predicate; of principal and accessory clauses; and, generally, upon a relation of each word, *in sense and construction*, to the rest.'

accuracy explained.

expect one of the following things to happen:—The error is at once detected by the master, and the child is called upon to correct it; or (2) one of the children calls it out; after which he generally goes above the boy who failed, either beginning to read himself, or, which is much less objectionable, reading after the depressed child finishes. Sometimes, however, instead of calling out the error, the children who discover it hold out their hands until the boy has ceased to read, or until some of them is called upon to name it. The distraction created by such a course is greatly increased when the hands are kept fluttering before the reader's face, until it is morally impossible he could think of anything else. And some masters would appear to take a pleasure in this folly, from the length of time which they permit it to go on.

In other cases, when the master detects the error, he does not immediately make it known, but, with the view of testing the attention of the class, he asks them to name the error committed. It generally happens, however, that the error was noticed by none but himself; but, from being unwilling to confess this, the boys answer at random. Hence arises a series of very painful guesses, which is put an end to only by the disclosure of the real fault—one very frequently so trifling as to be beneath notice, or so hypercritical as to be beyond the comprehension of the children.

My experience of the schools in which these plans are adopted convinces me that they are ineffectual to produce correct reading, though they are specially designed to do so. But even if they did, they do so by withdrawing the child's attention from the comprehension of the text, and must therefore produce correctness at the expense of intelligence.

Proper plan.

Instead of adopting any of these, the best way is to wait patiently until the child has finished the reading; you can then draw his attention to whatever errors he may have committed, and your remarks will have more weight both with him and the rest of the class, from their being made deliberately, and from the children's being attentive and prepared to receive them.

Interruption to give information, &c.

Interruptions which relate to the text itself, or to subjects connected with it, err from a different cause. They make the reading disconnected, and, by wasting the time of the lesson in continued questioning, they do not allow sufficient opportunity for the actual practice of reading, by which alone fluency can be acquired.[1] This is the fault, generally, into which clever teachers fall, if young and inexperienced. It is the object they have in view which sets them astray. But they ought to remember that there are two rules which no good teacher ever violates—'a time for everything, and everything in its own time;' and 'teach one thing at a time, and only one.' (If, for instance, the object be to teach reading, teach it alone; if to teach spelling, confine the instructions to that branch; if the subject-matter of the book be the object aimed

Generally error of smart teachers.

Wrong, because it violates two important rules:

1. 'A time for everything,' &c.

2. 'Teach one thing at a time.'

---

[1] Mr. Grant says (Min. of Council, 1860-1, p. 88)—'There is much misapplication of time and pains. Questioning is carried to such an extent as to give the reading quite a secondary place.' And again, Mr. Butler, in the 17th Report of the Commissioners of National Education, Ireland, writing upon this subject, thus explains the defect—'It frequently happens, that in a class of some twelve or fourteen pupils, hardly shall two or three short sentences have been read, until the teacher, ordering the books to be closed, will start off, upon some slight hint contained in the words of the lesson, into a rambling discourse, part exposition and part interrogation, relating to almost everything but what the subject before him ought naturally to suggest, and so contrive to spin out "the thread of his verbosity," that, at its close, the time allotted for the lesson will have expired, and the class will then be moved to their seats without the books being again opened; and to so great an excess is this system, miscalled intellectual, carried in some schools, that I should not be surprised to find children in them who, in the course of a month, had not read eight or ten sentences.'

at, avoid all digressions about grammar, geography, history &c.) The second of these rules is, in my opinion, one of great importance, and, though violated in nearly all subjects, it is more violated in reading than in any other.

Second special fault, undue attention to pauses.

Secondly, *they must refrain from forcing their pupils' attention too much upon the grammatical or printed pauses.*

At present, pupils think too much of them.

At present, from an over-anxiety to make them attend carefully to these marks, they cause them to count at each, to a certain length, determined by its character. Thus, at a comma, they count *one*; at a semicolon, they count *two*; at a colon, *three*; and at a period, they count *four*. When this is done audibly, the effect is very absurd. Take the following as an instance:—'We are told in the Bible that God made all things in six days *one two three four* The earth was at first dark *one* and without form *one two three four* Then God said *one* " Let there be light " *one two* and there was light *one two three four* '

Absurd habit of counting at stops.

No pause being made in the sound until the end; where the pauses ought to have been filled up by the repetition of the words one, two, three, four. And what a jumble we have, and how completely it would puzzle the most intelligent child!

Children so taught overlook the proper grouping of the words, their proper utterance, and the sense they convey, in their desire to count correctly.

Why these pauses are not very important.

These pauses are not, in my estimation, of so much importance in securing good reading as is generally attributed to them. They appear to be intended chiefly to aid a person in collecting and expressing, *at first sight*, the meaning the author intends to convey, and are, as it were, his instructions as to how he intends his words to be taken. When, therefore, his meaning is fully understood, they are, to a great extent, worthless, as, in such a case, nature assists in its proper expression independently of all printed guides, and this to so great an extent that it is almost impossible, as any one may convince himself of by trying, to speak incorrectly what he thoroughly comprehends.

If this be true, those marks are of but little value to the junior classes, from their not having yet acquired sufficient facility in reading to enable them to collect the meaning of the text by themselves, and when told the meaning pauses are, as it appears, unnecessary—yet it is with these very children that the system is chiefly practised.

Pauses are to the advanced children of the same value that they are to the teacher himself; but these are generally as capable as he of making use of them. I do not think, therefore, that this subject should receive any marked attention whatever from the teachers. If pupils have been taught to read by imitation, and if the master depend solely upon his own ear to detect whether they read too fast or too slow, or stop in the proper places, it will be unnecessary to put them in mind of the pauses. Such children will have learned to be guided by the rhetorical but unprinted pauses, which, after all, are the real ones, and to whose accuracy and minuteness the others are but an approach.

Reading by imitation renders any special attention to them unnecessary.

3. Must not stop at each full stop.

They must, also, avoid the error of limiting the portion for each boy's reading to what is contained between two full stops.

It is true that when there is no fixed limit, the boy who reads is found to hurry over the ending words of the sentence, to begin again before the next boy has time to do so, and his whole anxiety appears to be to get fairly launched into a new sentence, and so place himself beyond the risk of interruption. He pays scarcely any attention to what he reads, or how he reads it. The rule that requires them to stop at each full stop, certainly remedies

Evils of this course

these evils, but its tendency is to destroy both the teaching of the reading and the subject-matter of the lesson, for reading consists not so much in repeating accurately one sentence, as in joining several (correctly repeated, of course) properly together—the voice at the beginning of the one bearing, of necessity, a defined relation to the voice at the ending of the other; and the truest knowledge of the subject-matter is acquired, not by receiving isolated facts, such as are contained in single sentences, but by obtaining several joined together in accordance with the natural connexion existing between themselves and the subject to which they belong.

To understand this, take a lesson upon 'the tree.' This will naturally be arranged under the following heads:—(1) the root; (2) the trunk or body; (3) the boughs and branches; (4) the leaves; (5) the blossoms; and (6) the fruit. And, therefore, to gain the most correct idea of a tree, the facts mentioned under each head should enter the mind together. We should read first about the root, then about the body, then about the boughs, and so on, and avoid blending the facts together which appear under different heads. But, however, as several full stops may occur in the description of each part, the system which would limit a boy to one sentence would most certainly destroy the unity of each part, and render the comprehension of the whole vague and uncertain. The facts would enter the mind devoid of that systematic arrangement which forms an essential feature in the ideas we know most of, and remember longest.

Each should read till the description of each part is complete.

Each boy should, as a general rule, read to where the description of one part is complete. When the description is, however, too small, several of them may be joined together. I see that in the Graduated Series of Lesson Books, published by Messrs.

Longman, special arrangements have been made, in the printing, to remedy this fault.

Marks in the Graduated Series of Longman to guide the teachers.

The following mark (. . . .) indicates the place where each child may stop with most advantage:[1]—'This,' as the editor says, 'affords to each pupil a complete reading exercise, and is a more satisfactory resting-point than the mere full stop.' Of course, if time permitted, each child may read two or three of such divisions.

Teachers should divide their own books when not so divided.

I would strongly recommend teachers who do not use books so printed to divide them on a similar plan for themselves.

Means to keep the class attentive.

In conclusion, I may remark that all these suggestions proceed on the understanding that the class is attentive. If not attentive, much of their value is lost. To secure attention, the following means may be adopted:—

1. Boys only to read when told.

2. In the order selected.

3. Those who read ought to be called on again.

1. Do not permit the boys to read until told to do so. 2. Do not select them consecutively. They will thus, from not knowing when they will be called upon, be kept continually on the watch. 3. The most careless ought to be most frequently called upon; and, now and then, a child who has already read may be required to read again, to prevent the possibility of his growing careless, as some are naturally inclined to do, when they have finished their own portion.

4. Vigilant eye and active manner best means.

4. A vigilant eye and an active manner are, however, the best means. If you are active and attentive, your children will most likely be so too; and if they feel that they cannot idle without being seen, it is almost certain that they will not attempt it.

5. Avoid taking places in the reading lesson.

5. Avoid what is called 'taking places' during the reading portion of the lesson. It may be adopted, occasionally, in the general questioning upon the text, but it is never adopted with advantage when the pupils are merely reading. At best, indeed, it is

---

[1] See page 57, for a lesson so printed.

but a mechanical means for securing that attention which should be the result of an interest in the lesson, created and sustained by the master's own skill and manner.

Mr. M'Creedy's twelve practical rules for reading.

The following very excellent rules are quoted from Mr. M'Creedy's Report for 1850.[1] I beg to draw the teacher's special attention to them :—

1. *The children should be made to hold their heads well up, and to throw back their shoulders, so as to expand the chest.*

2. *They should be taught to separate the teeth, and open their mouths freely in speaking, using their tongue and lips properly, so as to bring forth the words in clear, round, well-defined, and therefore distinct tones.*

Note.—These two rules relate to distinctness of utterance merely.

3. *They should group their words properly, not separating those which ought to be joined, nor joining those which ought to be separated.*

Note.—This rule embodies that which I have stated to be the vital principle of teaching reading.

4. *They should be taught clearly the nature of accent, and how it determines the character of a word. Such words as 'abuse,' 'convert,' 'absent,' &c., in which the place of the accent varies, as it happens to them to be used as nouns or verbs, are very suitable for the purpose.*

Note.—This rule refers to pronunciation of words; but as, in these cases, the pronunciation determines the meaning of the words, and of course of the sentences also, it naturally comes to be a rule for reading as well as pronunciation.

5. *They should be made to slide over such unimportant words as* A, AN, THE, *and* OF, *&c., which they are accustomed now to make emphatic.*

Note.—The fault here alluded to, as has been already stated, is contracted chiefly in the First Book.

---

[1] Report of the Commissioners of National Education, Ireland.

6. *They should be made to read, at first, rather slowly, never hurriedly, and to observe the pauses.*

Note.—This and the previous rule are, in strictness, contained under the third, for when a child groups the words, and utters them properly, in accordance with the sense, he will necessarily slide over those which are unimportant—not slur over them, as too frequently happens,—and he will also pay due attention to the pauses. It is right, however, to separate the parts of that rule, that it may be clearly seen how very comprehensive it is.

7. *They must be guarded against the improper omission of consonants, particularly when final, as well as against the insertion of others in the middle of syllables, as, for instance, in the words length, strength, hand, certainly, immediately, which they pronounce as if lenth, strenth, han, certaintly, immediantly.*

8. *An error akin to the last is to divide monosyllables into dissyllables, pronouncing such words as warm, harm, &c., as if written war-um, har-um, &c.*

Note.—Rules 7 and 8 refer both to the true pronunciation of words, and to the distinctness of utterance. It is only in the last sense that they can be fairly put down as rules to teach reading, and in this sense they may be fairly classed with rules 1 and 2.

9. *Children should not be advanced from book to book too rapidly.*

10. *Instead of stopping them at the end of every sentence, or making them read sentence by sentence, they should often read by paragraphs, and occasionally their reading-lesson should be a lesson in reading and nothing more.*

11. *The advanced classes should be encouraged to read a good deal of poetry.*

Note.—When the style of reading is fairly formed, rules 9, 10, and 11, are applicable—the first to prevent that style from degenerating into hesitation and sluggishness, by being forced beyond the powers of the child, and the others to effect an improvement by additional practice. Rule 11 refers chiefly to this, as when reading poetry, during the time of the distinct lesson, reading is the primary object before the class, the master will be prepared to teach it with more effect; and, as a consequence, the pupils will attend more readily to his instructions.

12. *Above all, take care that in adopting the principle—of the most vital importance, when properly understood*—THAT TO READ WELL ONE MUST UNDERSTAND WHAT ONE READS, *you do not fall into the error of supposing it to mean that, provided your children understand a lesson, it matters little whether they read it or not, or that, if you only cultivate their judgment, the exercise of expression may be neglected; an error as gross as to believe that a man could become a painter by merely listening to lectures on perspective, or that one could learn to dance by perusing learned dissertations on the rationale of graceful motion. 'It is the habit alone of reasoning,' says some one, 'that can form a reasoner;' similarly, it may be said,* THAT IT IS THE HABIT ALONE OF READING THAT CAN MAKE A READER.

Rev. H. W. Bellairs' rules and remarks.

I shall close my remarks upon reading, by quoting the following, from the report of the Rev. H. W. Bellairs, one of Her Majesty's inspectors of schools:—

'Good reading,' he says, 'consists,

1. In the distinct pronunciation of every word.
2. In the clear perception of every word.
3. In correct emphasis.
4. In an ocular command over words and sentences, in order to fluent expression.'

And in order to effect these, he says, that,

1. 'The master and scholars should read each word simultaneously.
2. The teacher should explain the meaning of all difficult words, and interrogate them thereon.

3. He should read alone to the children each sentence as it occurs; the children then repeating after him, and, as far as possible, catching his mode of expression.

4. He should call out children to read parts of the lesson individually, and, in doing this, the worst may often be judiciously called.

5. The class should be broken up into small sections, each to be put under the best reader in it, and engaged in reading over alternately the lesson they have learned as above.'

Rules 1 and 3 refer to the principle of imitation as explained by me in the preceding pages. Rule 2 is the exercise upon the meanings of words which I have shown to be essentially necessary. Rule 4 is nothing but the practice of reading which daily takes place in each class, and Rule 5 suggests the use of monitors in reading, of which I entirely disapprove, believing them to be unable to teach a subject which has baffled the vast majority of teachers of experience and tact.

It will be seen, however, that my views are, upon the whole, supported by the inspectors, and others from whose writings I have quoted.

CHAPTER II.

LESSON BOOKS.

Object.

UNDER this head I propose to speak of the *explanation* of the subject-matter of the reading books.

Why necessary to be separated from remarks on intelligent reading.

This explanation is so intimately connected with what, in the previous pages, I have referred to as the intelligent comprehension of the text, which is a part of intellectual reading, that it might have formed, with propriety, a portion of the last chapter; but as it is a subject of great importance, and upon which my remarks must be extensive, I have deemed it more judicious to devote to it a separate place.

My remarks apply to any series of lesson book.

Irish books and Longman's Graduated Series extracted from.

My remarks will assist in the teaching of any series of Lesson-books, though it is from those published by the Commissioners of National Education in Ireland, and from Messrs. Longman & Co.'s 'Graduated Series,' that I have chiefly extracted, when I found that quotations were necessary to illustrate what I advanced.

Why these are selected.

I have selected those from their being so extensively used in every country where the English language is spoken, but chiefly from their being most familiar to me.

Most of the reading books are calculated to make the children intelligent, &c.

Most of the reading books published for the use of schools contain a vast amount of general and scientific information, valuable in itself and in its application, and generally so skilfully adapted to the varying capacities of the children that, were the lessons properly taught, they could not fail in making the youths of the country intelligent, well-informed, and desirous of self-improvement.

Through mismanagement both children and teachers ignorant of them.

Through mismanagement, however, more than from any other cause, the beneficial effects of these books have not only not reached the children to the extent they ought, but the teachers themselves are, as a body, ignorant of their contents.

It is strange that teachers do not know the books, but yet it is true.

It is, indeed, scarcely to be believed that those who are in the daily habit of using these books, talking of and explaining their contents, should be so ignorant of them; but every inspection of a school convinces one of the fact, and every yearly examination of teachers proves it. For even they themselves will admit that more fail in 'lesson books' at these examinations than in any other subject.

Result of bad teaching.

Question badly.

Objects they ought to have in view.

This is the natural result of the bad system of teaching pursued, and it is also the best proof of its badness. They do not question properly, as if, in fact, they felt that the great objects they ought to have in view were simply to test the children's comprehension of the text after reading, to explain, expand, and arrange the statements of the author, and to take such steps as would render their beneficial effects permanent.

I propose to give rules to effect these.

I propose in this chapter to give such rules to effect these objects as my experience as an inspector has shown to be successful. If the teachers carefully attend to them, and avoid the faults which I shall have occasion to point out, they will find how easy it is, after all, to know the lesson books well themselves, and to make their children know them too.

Chief points to be attended to in dealing with the reading lesson.

1. Meanings of words and phrases.

2. The actual reading.

In dealing with the text of the reading lesson the chief points to be attended to are evidently the following:—(1) The meanings of the words and phrases of the book; (2) the actual reading; (3)

3. The examination. 4. The resumé.

the examination upon the statements of the author; and their natural expansion; and (4) such a *resumé* of the whole as will test the attention and intelligence of the children, and fix the lesson more firmly in their minds.

Two first treated of in previous chapter.

As I have already given, in the previous chapter, the rules by which the teacher ought to be guided in dealing with the two first, it only now remains for me to add those which refer to the remaining three points. And first—

Rule 1: *Avoid the phraseology of book in asking questions and in answers.*

RULE 1.—*He must avoid, as much as possible, the phraseology of the book in asking his questions, and he must refuse almost every answer so conveyed.*

Generally violated, but chiefly by old or ill-informed teachers. They form their questions by putting *how, what,* &c., to the words of the text.

This rule is very generally violated, but chiefly by old, untrained, or ill-informed teachers. With such, the questions are invariably too mechanical and routine, and inhere too closely to the exact words of the text.[1] They read to the end of a clause, and add to it one of the interrogatives, *how, what, where,* &c., to give the form of a question, and the child conveys his answer in the remaining words of the sentence.

Example, from an actual case.

The questions and answers below illustrate fully what I mean. I took them down very recently during my inspection of a school in this district. They are recorded in the exact words and order in which they occurred, and refer to the following lesson upon

'THE ANT.'

swarm-ing
bu-sy
in-sect
la-den

cli-mate
im-mense
poul-try
war-like

run-ning
des-troy
bo-dy
march-ing

'When you are at play on the common, or in the fields, I dare say you have often seen small heaps of earth, thrown up on all sides, and swarming with busy little insects, running to and fro. These little insects are called ants, and it is quite worth while to stop and watch how they build their houses.

---

[1] Mr. McCreedy, Chief of Inspection, Ireland.

'You will see them come laden with leaves, bits of wood, sand, earth, and the gum of trees; with these they form their little hills. When their houses are built, these busy ants go out and seek their food, which they lodge in their little store houses till the time of need.

'Though the ant is so small an insect here, yet in some warm climates it is much larger, and builds a hill, from ten to twelve feet high. These ants are very fierce and warlike; they often destroy rats, poultry, and even sheep. Yet they have their use. In one distant and very hot country, where there are numbers of these ants, the houses swarm with all kinds of nasty vermin, such as rats, mice, and clocks. From time to time, immense bodies of ants may be seen, marching up to a house, and soon the walls, ceilings, and floors are alive with them, and they get into all the drawers and chests. Now begins a fierce battle, between the ants and the rats, and other vermin; it goes on for some hours; after which, you may see the ants dragging off their prey, quite dead, and feasting on their bodies outside the house. Then the people, who have been waiting out of doors, gladly return to their houses, which they find quite cleared from all vermin.'

Teacher. When you are at play on the common, or in the fields, I dare say you have often seen what?

Child. Small heaps of earth thrown up on all sides.

Teacher. And swarming with what?

Child. Busy little insects running to and fro.

Teacher. These little insects are called what?

Child. Ants.

Teacher. And it is quite worth while to stop and watch——?

Child. How they build their houses.

Teacher. You will see them come laden with what?

Child. Leaves, bits of wood, sand, earth, and the gum of trees.

Teacher. With these they build what?

Child. Their houses.

&c. &c.

Rote questions test the *remembrance of the text,* and not its meaning. No judgment required in framing them: any smart boy might do so as well as the master.

Such questions are clearly designed not to test the *substance* of the text, but *the remembrance of its words*; and so little judgment is required in framing them that any intelligent boy in the class, when put up to the *trick* (for it is but a trick), might examine upon the lesson quite as well as the master himself. He might not, indeed, put his questions with so much quickness and animation, or with such an air of confidence, but he certainly could frame them quite as well, and convey quite as much information. A lesson so taught does not exercise the child's understanding, nor does it appeal to his intelligence. When a master reads a part of a sentence as a question, nothing is more natural than that the child should give the remaining portion as the answer; and this, if he have a good memory, he can do without understanding the meaning of what he says, and, probably, with his thoughts fixed anywhere but on the subject before him.

They require no attention or thought from the children.

How it is that some men of intelligence adopt this system.

a. Style formed when teachers were bad.

b. Continued through custom.

It is strange that any one possessed of even the smallest intelligence should practise so unintellectual a system; but the truth is that it is not now practised upon its own merits. It was in force long before the formation of any government system of popular education, when the teachers were almost as rude and uncultivated as those they taught, and it is continued now without investigation, upon the unquestioned authority of a general custom.

c. Through example.

The young teacher meeting it upon the threshold of his profession, naturally adopts it. He finds that the majority of his fellow teachers practise it, and he falls into the error of believing that to be correct which has been so long and so extensively used.

d. Teachers have peculiar facilities for imitation.

There is a strong tendency to imitation in men of the same pursuits, and national teachers have peculiar facilities for obeying this law, from the fact that they educate each other. The child in one school becomes the master in another, and of course carries with him not only the system under which he was taught himself, but so complete a conviction of its merits, that he never for a moment dreams of investigating them. Unfortunately, however, the more mechanical the details are the more certainly will they be followed; for to carry out an intellectual system in its purity requires a knowledge of principles beyond the comprehension of most men, whereas almost any one may practise correctly routine arrangements which require neither judgment nor skill.

e. But they imitate the most mechanical portions chiefly.

How to avoid questioning in words of book.

The best way to avoid this fault is to adopt the practice of framing the questions with the book closed. When the lesson has been read the books should be shut, and the teacher should examine *upon what he himself learned from the lesson.* In such a case he is supposed to have made the facts of the author his own, and, as a consequence, his questions relating immediately to his own information—his own though proximately connected with the book—will be framed naturally. He will employ his ordinary language, and his children will learn to answer in the same way.

Rule 2. Every question must relate to the *subject*, and every answer to the *predicate*.

RULE 2.—*Every question must have a distinct reference to the 'subject' of the sentence, and every answer to its 'predicate.'*

The master must ask himself what is *the exact* *thing* of which each sentence treats, and what the author says of it, and he must frame his question and test the reply accordingly.

This appears too simple for a rule.

This rule appears too simple. To require from the master to know what he is going to ask about and what sort of answer he intends to receive, appears at first sight to be, indeed, not only too simple to be formally mentioned, but unnecessary, if not absurd. A little reflection, however, will convince one that many questions are asked upon the facts of a lesson which would not have been asked had these facts been fully known by the examiner. For instance, in the lesson just given the author's object was simply to tell the children where ants dwell or are found (this he certainly does in the very worst way), and the information could be elicited by any of the following questions:—Where are ants met with? What places do they inhabit? In what kind of place do they build their hills? &c. It is also equally clear that questions like the kind previously given, and which are the ones often met with, are wide of the subject, and could be used only by teachers who did not themselves know the exact points which they ought to have endeavoured to elicit.

Yet many questions asked which show that the teachers did not refer to the *subject*.

Example.

Rule 2 would render Rule 1 unnecessary if carefully carried out.

Were this rule carefully carried out there would be no need for Rule 1, for if a teacher recognises the *subject* and *predicate* of a sentence, and, by his questions, simply tries whether his children understand the sentence also, the wording of his questions will naturally differ from the phraseology of the author, as they have different objects to attain. The one ***may*** take the roundabout way, as in the lesson, of telling the locality of the ant, but the other must simply ask, *Where ants live?* All questioning, therefore, in the words of the book is a confession that the text is not understood by the teacher.

In order to carry out this rule successfully, I would recommend every teacher to mark upon the margin of his class books (I have already said that he should have a special set for himself) the *subject* of each important division of the lesson. The *predicate* need not be marked, as the text will be a sufficient guide. Take, for instance, the following lesson upon 'The Martin.' (Longman and Co.'s 'Graduated Series,' Book iii. p. 220.) His notes might be written as printed in the margin.

To carry out Rule 2, mark subject on margin in accordance with the example below.

'THE MARTIN.'

'A few house-martins begin to appear about the sixteenth of April; usually some few days later than the swallow. For some time after they appear, swallows in general pay no attention to nest-building, but play and sport about, to recruit from the fatigue of their journey from warmer countries. . . . About the middle of May, if the weather be fine, the martin begins to think in earnest of providing a mansion for his family. The crust or shell of this nest seems to be formed of such dirt or loam as comes most readily to hand, and is tempered, and wrought together with little bits of broken straw to render it tough and firm. . . . As this bird often builds against a perpendicular wall without any projecting ledge under, it requires its utmost efforts to get the first foundation firmly fixed. In doing this, the bird not only clings with its claws, but partly supports itself by strongly bending its tail against the wall; and, thus steadied, it works and plasters the materials into the face of the brick or stone. . . . Then, that this work may not, while it is soft and green, pull itself down by its own weight, the provident architect has prudence and sense enough not to advance her work too fast. She builds only in the morning, and gives the rest of the day to food

Time they visit us.

Play for a month.

Time they begin to build.

Material for crust of nest.

How fixed to wall.

The martin does not build fast.

Quantity built daily, and time at it.

A parallel case.

Time to finish nest.

and amusement, so that the clay has sufficient time to dry and harden. . . . About half an inch seems to be a sufficient layer for a day. Thus careful workmen when they build mud-walls, informed at first perhaps by this little bird, raise but a moderate layer at a time, and then stop, lest the work should become top-heavy, and so be ruined by its own weight. . . . By this method in about ten or twelve days a nearly globular nest is formed, with a small hole towards the top, strong, compact, and warm.

Description of complete nest.

'The shell or crust of the nest is a sort of rustic work full of little knobs on the outside: nor is the inside of those that I have examined smoothed with any exactness at all. It is rendered soft and warm, and fit for the laying of eggs, by a lining of small straws, grasses, and feathers; and sometimes by a bed of moss interwoven with wool.

Young birds impatient.

How the young are fed.

Second brood.

What becomes of first brood.

'As the young of small birds quickly arrive at their full growth, they soon become impatient of confinement, and sit all day with their heads out at the hole, where the dams, clinging to the nest, supply them with food from morning to night. For a time the young are fed on the wing by their parents; but this is done by so quick and almost imperceptible a movement, that a person must have attended very exactly to their motions before he would be able to perceive it. . . . As soon as the young are able to shift for themselves, the dams immediately turn their thoughts to the business of a second brood. The first flight, shaken off and rejected by their nurses, meet in great flocks, and these are the birds that are seen clustering and hovering on sunny mornings and evenings round towers and steeples, and on the roofs of churches and houses.

Why they are slower than the swallow.

'Martins are by far the least active of the four species; their wings and tails are short, and, therefore, they are not capable of such surprising turns and quick and glancing movements as the swallow.

Accordingly they make use of a quiet easy motion in a middle region of the air, seldom mounting to any great height, and never sweeping long together over the surface of the ground or of the water. . . . They do not wander far for food, but frequent sheltered districts, over some lake, or under some hanging wood, or in some hollow vale, especially in windy weather.

Their flying.

Where they get their food.

'As the summer declines the congregating flocks increase in numbers daily by the constant accession of the second broods, till at last they swarm in myriads upon myriads round the villages on the Thames, darkening the face of the sky. They retire together in vast flocks about the beginning of October, in search of milder climates, to the south.'

Leaving the country.

These marginal notes would show the teacher *what* he was to ask about, and knowing this he would also have little difficulty in framing his questions. The very fact of referring to the margin and not to the text would assist him, for it is the rote knowledge of the text that too often confuses and leads to rote questioning.

Rule 3. Expansion necessary, but it must be legitimate.

RULE 3.—*It is necessary not only to explain, but expand the text; but in doing this care must be taken to avoid all questions not essentially connected with it.*

Why necessary.

It is impossible that any author could adapt his language to the capacity of every child, or convey his information so that all will comprehend it. Neither could he compress into the limits of an ordinary lesson all the most important facts of many subjects; and hence *explanation* and *expansion* are not only permissible, but required. But to be useful or legitimate they must be kept within well-defined limits.

Legitimate only where the questions can be easily traced to

The expansion of a lesson I hold to be legitimate only where the questions can be easily traced to their source in the subject-matter itself. All other their source in the lesson.

questions, in my estimation, come under the head of *rambling* teaching—a system deserving of special mention from the injury it does, and from its extensive use.

Rambling teaching.

What it is.

The reading books are used to teach spelling, meanings of words, derivations, grammar, geography, history, &c.; and the system I now speak of is that which blends all these subjects together in one common lesson. As an instance, take the following extract from 'The Martin' just referred to:—

Example.

'As this bird often builds against a perpendicular wall without any projecting ledge under, it requires its utmost efforts to get the first foundation firmly fixed.'

The lesson goes on somewhat thus:—

Against what kind of a wall does the martin build? 'A perpendicular wall.' Spell perpendicular? What part of speech is it? Why? What other part of speech is it often? Give examples? What sort of a ledge is a projecting ledge? Root of projecting? Prefix? Affix? Meaning of these? Give other words from the same root? Their meaning? Give other words beginning with 'pro'? others ending with 'ing'? &c.

Or again: *Spell foundation? How many letters are vowels? How many are, therefore, consonants?* This answer is to be found by subtraction, so as to make it, as the advocates of this system say, an interesting question in arithmetic. But they forget that they have no right thus to jumble the elements of grammar and arithmetic together, in teaching a subject which has probably as little natural connection with either as either has with chemistry.

Or again: *Spell firmly. What is the last letter in 'firmly'? why a vowel? Mention other words ending with this letter?* (in order to give, as the advocates of this system again say, a facility in using the English language).[1]

---

[1] Wood's Sessional School; Dean Dawes' Suggestive Hints, &c.

Rambling a gross violation of common sense, and of the rule already referred to.

Such teaching is a gross violation of common sense, and of that excellent rule already mentioned—

> '*Teach one thing at a time, and only one.*'

A mere jumble.

It jumbles everything so thoroughly together, that it would be impossible for a child to tell what *subject* he had been learning, or for the master to say what he had been teaching. And how can teaching be called rational, where neither master nor child knows at what he aims? Surely, if we teach grammar, it is not too much to expect that we shall treat of language, and that the child will know that we do so; or if we teach geography, that we shall treat of the earth; or if we wish to treat of arithmetic, that we confine ourselves to number! And why should we not expect that in a reading-lesson the subject-matter will form the sole ground of our remarks, *and that the child will feel that this is so*?

I cannot see anything in the lesson, for instance, from which the above extract is taken, to authorise my asking how many letters there are in *foundation*, or how many will remain when all the vowels are taken away. I might just as well in a grammar-lesson ask how many letters are in the words *preposition*, or *conjunction*, and follow it up by asking how many parts of speech would remain if the noun and adjective were gone. Nor can I at all understand why the time of a class should be taken up in enumerating the words which begin or end with *y*. I know that it is argued that by such an exercise a valuable facility of expression and a command over our language are acquired. But, in my opinion, this is quite a mistake. There is certainly a facility acquired of selecting words beginning or ending with this letter, but I have yet to learn how such a facility is to be made valuable.

Its display is the chief cause of its popularity.

The chief cause which makes it popular is the display which is naturally attached to it; and on this account it is the vice of many of our most promising teachers at the outset of their career, or after a short course of training in some model school.[1] It is a change from the old system sufficiently showy to please themselves, and sufficiently like good teaching to deceive most others. They are attracted by the quickness with which questions can be put, and with the appearance of vivacity and skilfulness which a lesson presents when so conducted. But the *trick* will soon be discovered, and must bring discredit upon all who have recourse to it.[2]

Practised by promising teachers after training, &c.

Final objection.

No system of teaching can ever succeed that thus fritters away, among several subjects, the time designed for one, which allows the facts to enter the mind distorted and disjointed, and which does not admit of the employment of the best methods of teaching the subjects it treats of.[3]

---

[1] It is probably from finding this system practised by such men, that it is called *intellectual*; but, in addition to other reasons, to show that it is anything but intellectual, we have only to consider the amount of mere routine into which it almost always degenerates. For when teachers are at liberty to depart on every occasion from the subject before them, they naturally become at last to wear fixed channels, into which they always diverge — their questions become stereotyped in a certain fixed order, and when they ask the first of the series, they continue asking them until the end. And this happens so frequently that, as Mr. McCreedy says, 'any experienced inspector, in the case of many schools, could name beforehand thirty per cent. of the questions he is destined afterwards to hear in his presence.'

[2] Professor Butler, Dublin.

[3] Mr. McCreedy, Chief of Inspection, thus describes the system: 'The teachers break off "in brave disorder" from the vulgar bounds of the subject of the lesson in hand, and extend their questions to an indefinite variety of the most incongruous matters — touching upon everything and dwelling upon nothing — with no kind of sequence or coherence for two minutes together, nothing linking itself with what goes before, or giving support to what comes after, but the whole composed of such heterogeneous and discordant elements, and brought together so rapidly, that it would be as idle to talk of a man's attending to the objects which glance

Example of legitimate expansion.

Expansion to be legitimate must, as I have said, naturally spring from the text, and be easily traceable to it.

Take first the lesson without any expansion.

To illustrate this, take the lesson on 'The Ant.' It is clear that the author wished to tell, (1) where ants live; (2) in what they live; (3) of what their hills are formed; (4) of their foresight in laying up food; (5) of their size in warm climates; (6) of the injury they do; (7) of the good they do. And it is clear, also, that the following questions would elicit all this information from the children with as much brevity and accuracy as are desirable.

1st. *In what localities are ants found?* 'In fields and waste grounds.'

2nd. *What are their little houses called?* 'Ant-hills.'

3rd. *Of what are these hills made?* 'Of leaves, bits of trees, gum, earth, &c.'

4th. *What do they do with the food they collect?* 'The part they do not eat they lay by for use in winter.'

5th. *What size are the ant-hills in other countries?* 'From ten to twelve feet.'

upon his vision through the window of a railway carriage, as to expect children to attend, in any true sense of the term, to any subject so treated; and, therefore, if of the rote system it may be said it is such as to put the attention to sleep, of this it may be said, with equal truth, that it is only calculated to distract and bewilder it.'

Again, Mr. Gordon (Min. of Council, 1845, vol. ii. p. 338) says: 'In some schools the lesson cannot be called a lesson upon reading, grammar, geography, or Scripture history; for, short though it be, it is a lesson on all these at once—seldom two questions in succession lighting upon the same province of knowledge. It is unnecessary to observe, that the first and last effect, if not the very intention of this wilful confusion, is to prevent anything like a steady exercise of attention upon the matter so transiently presented. Occasionally, from some prevailing bias in the teacher's mind, the lesson is completely transferred from the subject with which it professes to be occupied, and settles upon ground altogether different. The lesson on religion thus becomes a lesson on etymology, natural history, or grammar.'

6th. *How do they injure us?* 'They destroy our food.'

7th. *Of what use are they?* 'They kill rats, mice, and other vermin.'

In this there is no expansion whatever. The questions test merely the children's knowledge of the author's statements, and the lesson is valuable just in proportion as these statements are satisfactory, important, and complete. It is good, in fact, as far as it goes, but it ought to be expanded in the following manner, and in the places selected:—

2ndly, the expansion of this.

1. The different places in which insects take up their abode may be stated. Some dwell in the air, some in water, some in marshes, some in old walls, &c., but ants live in mounds of earth, which they build in commons and the waste portions of fields. (Why the *cultivated* portions would not answer might also be stated.)

2. The method by which ants carry their food, and the materials for their hills, should be explained; because children cannot understand, without explanation, how such very small insects can perform these tasks.

3. The fact that ants live together in societies should be illustrated by the parallel case of the bee. The proof of the foresight given in the lesson should also be shown to be an error, and from what it sprang.

4. Some tangible illustration of the size of the ant, in this and other climates, is necessary (that is, when the insects themselves cannot be produced). Their hills, also, should be compared in height with the height of what they know, as the height of the ceiling, or of the desk, &c.

5. Again, it should be shown that the injury done by these insects is very little in comparison with the good they do; and, moreover, as we can

prevent the injury we can reap all the benefits of these useful creatures, without any of their disadvantages.

6. And finally, it should be explained how much better it is that they should eat and drag off their prey in warm climates, than that they should simply kill and leave it as a dog does a rat.

In expanding a lesson the quality of the teacher is known.

It is in this that the difference between teachers is most perceptible. The man of experience and intelligence ransacks the hoard of knowledge which reading has enabled him to form for facts illustrative of the lesson. His judgment enables him to reject what is inapplicable, and by his superiority of skill he dovetails what he does select so cleverly into the text, that the whole appears as one completed piece. Whereas, one of the other class of teachers either confines himself slavishly to the text—from having no stock of information from which to cull, or taste to guide him in his choice—or else he wanders into a set of stereotyped questions upon every subject in the school course, distracting and bewildering his pupils.

Explanations must be *brief*, *definite*, *complete*, *and in plain and intelligible language*.

Pupils must be questioned on the explanation as on the text.

The explanations must be *brief*, so as not to weary the children, or burden their memories. They must be *definite* and *complete*, so as to suggest no doubt, and require nothing supplementary, and, above all, they must be *couched in plain and intelligible language*. The children should, immediately after each explanation, be questioned upon it, as upon the text itself, to see that it is understood, and in what way; *for much of the value of explanation is lost by taking it for granted that it is understood.*

Expansion to be noted on margin, or in leaves inserted for the purpose.

In Rule 2 I recommended the teachers to note in the margin the facts to be brought before the class, as contained in the text-book itself; I think they should also note which of these they intend to expand, and how. In doing this each teacher will adopt the system of marking most intelligible to himself. If there is no room on the margin, he should get the lesson books rebound, desiring the binder to insert two or three white leaves between each pair of printed leaves, and use these for notings. The expense would be very trifling.

Where allusion is made to countries point them out on Map of *World*.

Where allusion is made to countries, it is necessary to point them out on the Map of the World—no other map can afford so good an idea of their position in respect to other countries with which they may be compared: but it is not correct to speak of these countries farther than it is absolutely necessary to explain the text. If we say, for instance, that 'the people of Great Britain and Ireland form but a small portion of the people of this world,' it will not do to take occasion from such a reference to these countries to ask, as some do, the boundaries of Great Britain, the chief towns and rivers in England and Scotland, and the provinces and counties of Ireland. These do not explain the text, and must be postponed until the geography lesson, to which they really belong.

Must refer to them only in so far as it is necessary to explain the lesson.

When countries are referred to without being *named*, child must give *name* in his reply.

In some lessons a country may be *described* without being *named*, as for instance, 'the country where man was first placed,' 'the country opposite Gaul,' 'the most populous empire in the world,' &c. In such cases, the child must in his answer give not only the description, but the name of the country referred to, and, of course, he must point the country out on the map.

Manners and customs of foreign countries to be compared with our own.

Again, when reference is made to the manners and customs of foreign countries, the true expansion of the lesson requires that any difference existing between these and ours should be carefully pointed out. For, by thus comparing them with a standard with which they are already acquainted, the children will be enabled to form correct ideas of them.

The object itself—its picture, or a

In some cases either the object itself, or its picture, or a rough sketch on the 'black board,' gives a distinctness to the lesson which it otherwise could not possess.

sketch on B. Board required often for explanation.

Value of these aids.

No amount of description will enable children to realise the true form of any object; or, if it could, would it enable them to do so as quickly and adequately as a glance at its picture or at the thing itself. The impression made is also more vivid, and for that reason more permanent and valuable. How interesting the lesson on 'the ant' becomes by the production of one of these insects for the inspection of the class, or how vividly the facts of the lesson on 'the butterfly' would be understood and impressed upon their minds if the teacher laid before them one of these animals in its various stages of egg, larva, chrysalis, and winged inhabitant of air! How easy to explain lessons upon the tiger, lion, fox, &c., by the aid of coloured prints of these animals! Take, again, a lesson on botany. How long would one discourse about the calyx, corolla, stamens, petals, sepals, pistil, &c., without making himself understood, or producing the same impression that he would create by picking a flower to pieces before the class, and naming each part as he threw it aside!

All required inexpensive, and a pleasant occupation for teachers and children.

All required in the way of tangible illustrations is happily inexpensive, and the collection of most of them may be made a pleasant occupation to both teacher and children.

Prints chief expense.

The chief expense is in the purchase of prints, but teachers both in England and Ireland[1] have peculiar facilities afforded them, so that even in this case the amount required will not prove heavy. But pictures should be used only where the object itself cannot be had, or conveniently exhibited. The master should collect from time to time, as opportunity offers, a specimen of every article

Hints to form an object cabinet.

---

[1] In Ireland the Commissioners of National Education supply their schools with apparatus at an extremely low cost.

a. To be collected by master and pupils.

b. To be arranged in order of the lessons themselves.

mentioned in the reading books, and he should arrange them, in a press or cabinet specially provided for the purpose, *in the order of the lessons themselves*, so that when called upon to teach any lesson he would find in *one* place all the objects he would require for illustration.

c. All specimens must be real working specimens.

In forming this cabinet, he should bring in the aid of his children, by requiring each to get specimens of those inexpensive articles with which they are familiar. But whether he forms the cabinet himself, or receives the assistance of his scholars, he must accept no specimens except real *working* specimens. Most of the object cases generally met with contain specimens too small to give a correct idea of the object to a large class without considerable trouble, or else so neat and delicate that they cannot be handled without injury. They are thus rendered almost worthless.

Such a cabinet preferable to any purchased.

A cabinet formed as I point out is infinitely preferable to any that can be purchased. The very acts of collection and arrangement, in which the children take part, will improve their perceptive faculties, and teach them to observe and think, while, as they will naturally take more interest in their own work, they will be more attentive during the lesson, and derive, by this means, more improvement from the master's teaching.

Rule 4. Resumé of lesson required.

RULE 4.—*The teachers must insist upon a careful resumé of the lesson, either orally or in writing.*

Good teaching will fail without this.

Many teachers examine fairly—their questions are properly framed and directed, either to the exact statements of the author, or their legitimate expansion—and yet the permanent results effected are unsatisfactory, simply from omitting to test, by a recapitulation at the close of the lesson, how and how many of their statements were really understood, and likely to be remembered and applied.

Teachers may think it

This is a very serious omission; for, next to explaining the lesson, it is clearly necessary to see that that explanation is understood. Many teachers may fancy that their remarks have been so lucidly made, and in such simple language, that no child could fail to comprehend them, and on this account they may think the application of this rule a mere waste of time; but if they reflect upon the great variety in the children of even the best-assorted class, upon the dullness of some, the listlessness, apathy, inattention, or mental preoccupation of others, they will find ample reason to see that, even when the lesson has been most carefully taught, when all the facts have been conveyed in the clearest manner, there will be some children either untouched at all, or very dimly impressed indeed, with what was repeated before them, while others may have picked up the facts in so confused a manner as to be incapable of applying them legitimately afterwards.

unnecessary from the care they take, &c.

Always necessary, however.

A careful resumé will test all this; it will point out the children who are inattentive, or intellectually slow, and in what way the lesson has affected the minds of the others; and it will thus enable the teachers to apply to each the special remedies which his case requires. But it will also accustom the children to express themselves orally with facility and correctness—a part of education now much neglected. To know a thing and to be able to state it ought to be inseparably connected; but now, as the experience of every one will prove, a child may know, and yet be unable to show that he does so.

Its uses.

a.
Will point out the dull and inattentive, and allow of special remedies to them.

b.
Will give the children facilities in oral composition.

In Ireland this exercise is scarcely, if at all, attended to, though from the very first it was recommended and enjoined in the following terms, taken from the preface to the Fourth Book. 'After having been examined upon a lesson, the pupils should also be made to state in their own words all they have learned from it.' In England it receives a good deal of care; in America it forms an

Oral composition and resumé neglected in Ireland, though recommended in Fourth Book Preface.

Attended to in England and America,

but chiefly in Germany, &c.

important element in primary school education; while in Germany and some other countries it is carried to so great a length that a considerable time is spent with all newly-admitted children solely in getting them to express their thoughts *vivâ voce*, with readiness and accuracy.

Dr. Johnson's opinion in its favour.

Dr. Johnson, the celebrated lexicographer, says of it, that it is an excellent plan to encourage children to repeat whatever of importance they may have read, or seen, or heard of. 'The very attempt,' he adds, 'to tell it to others would fix it most indelibly on their own minds;' and he relates that his own mother was in the habit of encouraging him to repeat to the gardener whatever she had taught him.

Chiefly from neglect of this rule that the lesson books are not known.

It is chiefly from a neglect of this exercise that masters themselves do not know the books better than they do, and that their children, even those who have gone over them twice or three times, are unable to answer upon any lesson selected at random from the table of contents, unless they are allowed to refresh their minds by reading it again. Both teachers and children labour under a mistake with respect to the information these books contain. The one regards it as his duty to *explain* it, the other tries to *understand* it, but neither seems to think that it is compulsory upon him to *remember* it. And as a consequence of this, it happens that there are few teachers, indeed, who could teach a lesson without hearing it read again, although they had frequently taught it before, and very few scholars who could answer upon what they had passed over for a few weeks, or even for a few days.

Mistake made regarding the information of the books.

But few teachers could examine without hearing the lesson read again, and few scholars could answer on what they have passed over.

This is not so in grammar, geography, &c.

But surely it is not too much to expect that this should be otherwise? If a teacher be called upon to examine a child upon grammar, or geography, arithmetic, or geometry, for instance, would he not be ashamed to confess his inability to do so unless

Should not be so in reading books.

allowed to read the book again? And unless the child can answer creditably so far as he has gone, will he not cause dissatisfaction? What is there in the nature of the reading books to make a similar test unfair?

It may be said that the scattered arrangement of the lessons interferes.

It may be said that the arrangement of the lessons interferes. This is true to some extent: for when the subjects treated of are broken up into chapters, which are separated by others with which they have no connection, the information does not enter the mind in that connected and methodised form which gives to other studies much of their permanence and value; but the whole fault cannot be traced to this cause, especially as many of the lessons, such, for instance, as those upon zoology and history, are not so separated, and as the others may be read connectedly if the teachers wish. The truth is, that whatever other causes may be aiding and assisting, the principal one is to be had in the neglect of the present rule.[1]

This is not the chief cause.

To carry out this rule attend to the following points.

1. Most interesting fact to be given first.

2. Expansion must be repeated.

3. Only what

In carrying this rule out the following points require attention:—(1) the pupils should be encouraged to give *first in order*,—no matter in what order they learned them,—what appeared most new and most interesting to them, and when any child obviously fails in this the others should be induced to excel him; (2) the expansion of the text must be repeated as well as the text itself; (3) nothing should be accepted but what has been actually touched upon the teacher entered upon to be repeated.

---

[1] Mr. Sheridan (Report of the Commissioners of National Education in Ireland for 1858) gives another reason for the ignorance spoken of. He says: 'When a class has read one-half or one-fourth of its lesson book, the common practice is to make the children *commence the book again*, and this alternation of progress and retrogression goes on so often, and so long, that the children at last come to have the lessons in the beginning of the book off by heart, or nearly so, while they know little or nothing of the lessons in the latter half of it. This has the twofold effect of detaining the children too long in the class, and of depriving them of a good deal of the information which the lesson books are intended to convey.'

The fact is, the child should not be put back until all the lessons are finished.

4. Pupils must use their own words.

5. Pupils are not to answer in order as they sit.

by the teacher, and it should be conveyed by the child *in the way it was intended to be used*; (4) in all cases the pupils must use the words of their own simple vocabulary; and (5) the pupils should answer as they are selected at random through the class.

Object and advantages of these.

The object of all these is to make the *resumé intelligent* and *exact.* If the pupils are taken consecutively as they sit, they will each have their answer prepared, and when they deliver it they will pay no more attention; if left to themselves, the first child called upon will select the opening part of each lesson, though, in general, it is not the part which is the most interesting, and which ought, therefore, to make the most vivid impression and be first quoted; if not encouraged day by day to excel each other in giving the facts in order of their importance, and arranged with respect to what the master intended them to prove, or if allowed to answer in the words of the book, the exercise will degenerate into mere rote work; and, finally, the very meaning of the word *resumé* shows that all things touched upon, whether in the text or its expansion, should be repeated, and none others.

Children at first find a difficulty in expressing themselves even when they know.

Children, at first, very often experience a difficulty in giving in their own words the substance of what they are taught, even when they fully comprehend it. This often proceeds from their failing to perceive what exactly it is which is required from them. The best guide is to tell them to remember any question that was put during the lesson, to themselves or others, and to give the answer which was given to it. They are not, of course, to repeat the question when called upon to remember it; they are merely to think of it, and repeat the substance of the answer.

How to guide them.

Exemplification of the connection between question, answer, and fact.

The following may exemplify the connection which exists between the *question*, the *answer*, and the *fact* which in the resumé the child should give: —

Question.	*Answer.*
When do birds begin to sing ?	In Spring.
Fact.	
When do birds begin to build their nests?	In March.
Fact.	

Fact formed of answer and part of question.

The fact being thus formed of the answer joined to a part of the question. 'Birds begin to sing in spring,' 'Birds begin to build their nests in March,'—what the children ought to have learned from the above questions, and what they should repeat when called upon,—are evidently so composed.

Learn from this how the nature of question affects answer, &c.

We may learn from this how very much the character of the question has to do with the quality of the answering.

If the *question* be conveyed in the exact words of the book, the *answer* and the *fact* will naturally be so conveyed also.

Must close *every* lesson, and be commenced with the lowest classes.

This exercise should close every lesson. It should also be in force even with the lowest classes, for it is quite within the power of every child in them to repeat the few simple facts to which the teacher will consider it his duty in their case to confine himself. The habit also thus early formed will produce very many advantages as they proceed, while from all that I have already advanced, it is easy to see that every lesson is incomplete, whether of the junior or the senior classes, which does not close with a recapitulation or summary of its parts.

***Resumé* must be written as well as oral.**

A very valuable form which this exercise may assume is as a written instead of as an oral resumé, and I think that during some portion of the day it should be so practised. The written exercise should differ from what I have just sketched only in being on paper, and in its being immaterial at what time after the lesson it is performed. It may also form a part of the home duties allotted to the children. I need scarcely say, however (for all written exercises prove the same), that if it be conducted unfaithfully or carelessly, if the papers are not diligently examined, and all errors marked and corrected, it will be valueless, if not actually injurious.

Preliminary summary and questioning recommended in addition to recapitulation.

Closely allied with this exercise is the practice which prevails in some schools, and which I would be glad to see more common, of giving to the children, before they begin to read, a very brief and familiar account of what they are proceeding to read about. When this is well done it is astonishing what an amount of interest it excites in the lesson, and how greatly it deepens the impression which they afterwards receive from the language of the text. Along with this the 'teacher should put before his pupils *previously* to their reading each lesson, some questions preliminary to the matter of it, requiring of them answers oral or written, the best they can think of, without consulting the book. Next, let them read the lesson, and afterwards let them be examined as to the portion they have learned.'[1]

Advantage of.

This preliminary questioning and summary will create the desire to learn, which all good teachers should endeavour to create before proceeding to impart information. It is like creating an appetite before supplying the food to satisfy it.

Rule 5. Prepare lessons beforehand.

RULE 5.—*Prepare the lesson carefully beforehand.* It is a careful and judicious adherence to this rule that enables the teacher to carry out the previous ones as they ought to be carried out, and gives to them the greater portion of their value.

Advantage of it.

Without this preparation there can be no freshness, no suitable variety in the matter to be taught, and the whole scheme of instruction must become a dull and monotonous routine.[2]

---

[1] Whately's Annot. Bacon's Essays.

[2] Mr. McCreedy, Reports of the National Commissioners, Ireland.

Mr. Butler (same reports) says: 'The most advisable course

Preparation is necessary for several reasons. Among others—(1) to discover the facts of the author as simply recorded in the book; (2) to meditate upon their suitable illustration and expansion; (3) to methodise all; and (4) to frame the questions correctly and rapidly, and deal satisfactorily with the answers received.

Why necessary.

The *first* should not, as a general rule, take much previous preparation. Men of intelligence will find it easy to detect the exact points which the author of any ordinary lesson wishes to place before his readers, and men less happily gifted will probably do as much after the first or second reading of the lesson over, as they will by more laborious and longer study.

(1) To discover the facts of author. Should not take much time.

The *second* will be easy or difficult in proportion to a man's tact, and his previous reading. He who has been in the habit of reading general literature extensively, of studying in the way he was afterwards to teach, and of noting in a commonplace book whatever struck his attention, and arranging it in the light in which a child could comprehend it, will have but little difficulty in selecting the information required for illustration and expansion; but all others must necessarily consume, and often very ineffectually, a large amount of time in consulting proper works.

(2) Illustration and expansion. Time to be spent will depend on a man's previous reading.

Every teacher, therefore, to be successful in conducting a lesson must study himself; he must be ever reading, ever noting new facts, and arranging

All teachers must be students themselves.

for the teacher to adopt would seem to be to prepare beforehand each day's lesson.'

Mr. Bellairs (Min. of Council, 1859–60, p. 30): 'Reading is bad, because lessons are not properly prepared over night.'

Mr. Stewart (Min. of Council, 1852–3, p. 872): 'It would give great additional value to the instructions if the lessons were in some cases more carefully prepared.'

Mr. Scoltock (Min. of Council, 1860–1, p. 170): 'The lesson should be most carefully studied the previous night, and questions prepared, so that the teacher might be thoroughly able to explain the meaning of the author.'

and simplifying others. No man can make others love reading unless he loves it himself, and no man can sympathise with the difficulties of a student unless he is a student too.

(3) Arrangement.

Why necessary.

The *third*, which treats of the regular arrangement of the information, renders previous preparation to some extent a matter of absolute necessity. Many lessons are written so carelessly as to admit of more suitable arrangement, and in many the statements advanced as proofs are so loosely connected with the conclusion which it is sought to establish, that their efficacy is lost if the teacher himself do not remove the error. I remember an instance of failure on this account, which happened with a very good teacher. The lesson was written to prove that all the people in the world are of one race, and consisted of a certain number of distinct and appropriate facts, which the teacher explained fully and clearly enough; but when, at the end of the lesson, I asked the children to use them in proving that we all come from Adam, not one, even of those who remembered them, could do so. The fact was, that the master omitted this part of his duty. His error arose from a want of classification founded upon the object which the lesson had in view.

Instance of failure from neglect of this.

This makes *special* study of each lesson essential.

No amount of *general* reading will remedy this defect. Each day's lesson must have its share of special attention, but, as in the other cases, the difficulty will vary with each teacher. Some men's minds are so comprehensive as to seize the whole subject at a glance, and so methodical as to arrange the parts correctly without trouble, while the minds of other men are neither methodical nor comprehensive, and of course in their case the matter is one of labour and study. Whatever may be the amount of study required, the teacher, however, must undergo it in order to be successful. It is his duty to extract from the lesson all that it is capable of yielding for the child's instruction, and to arrange this information so that he will be able to present it in the most correct form to the minds of his children.

(4) Necessary to prevent hesitation and stumbling in forming questions.

The *fourth*. Some previous preparation is necessary to enable the teacher to put his questions with ease and correctness.

It is very painful to witness the exhibition presented by teachers when they stumble and hesitate after every question. One question is asked with much labour, the master then pores over the book for some minutes—the class looking on listlessly, or else talking to each other—and then he asks another. He next reads a second piece of the lesson, and asks another question, and so on; his questions are thus delivered to an inattentive class at long intervals; they are ill-directed, ill-worded, ill-arranged, and the lesson itself is sadly stupid and lifeless. He confounds the intelligence of his children, and stamps his own dullness upon them.

Cannot deal with pupils' answers without previous preparation.

Without previous preparation many teachers will be unable, also, to deal properly with the answers they receive; for these are often incomplete, and require to be supplemented, often mixed with error and require sifting, and often apparently to the point when quite off the mark, and therefore require direction. Without it, in fact, the questions are likely to be obscure, hesitating, desultory, and ineffective, and the answers of the children to be deficient in accuracy, clearness, and precision.

Some of the requirements for good questioning.

(1) As to tone of voice.

Being led into the subject of questioning, I may add before leaving it that questions to be good must be conveyed in proper language, and in a tone of voice neither monotonous, nor disagreeable. Many teachers put their questions in a loud, abrupt, mechanical tone, often flippantly and thoughtlessly, and never vary their voice with the subject. In such cases nature is not acting, and neither the children nor the teachers are impressed with what they are doing. Monotony wearies, while variety of inflection awakens the attention, deepens the impressions made, and gives the pupils a pleasure in what they are taught. I do not recommend the teachers, however, to be always thinking of the tone they ought to use. Let them feel what they say, and the tone will take care of itself.

(2) As to varying the words.

Questions must also be varied. One set of words may not be fully understood by some, which, if slightly altered, would be answered by all. One form of illustration may strike a certain number of children, while a different form may strike the others. And this change is a lesson in expression and language to the class.

(3) Must not be vague, indefinite, &c.

The questions must not be vague and indefinite, for thus they admit of many answers equally correct. Fancy how many answers could be given to the question, 'When you are at play in the fields, I dare say you have often seen what?' Not one of which can, in fairness, be rejected, and yet not one of which may be the answer sought. Questions ought to admit of but one answer, and that the answer actually expected. Those that admit of 'Yes' and 'No' answering are not in general good.

'Yes' and 'No' answering not good.

Incomplete answers bad.

Approximations to answers must always be rejected if given in place of the answers themselves. They may of course in many cases be taken for as much as they are worth, but the child should always feel that they are deficient in completeness and exactness. When the master is careless in this respect a habit of mind is established which prevents the formation of any clearly-defined ideas, and leads to great looseness in thinking and reasoning.

A distinction in this between *examining* and *teaching.*

It is right, however, to make in this matter some small distinction between *examining* and *teaching*, as the objects in view are different. In examining the object is to test acquired information, and to do this correctly, the child must be left entirely to himself, so that he may express his thoughts exactly as he likes. In teaching, on the other hand, as the object of the master is to lead him on gradually, from familiar ideas to those which are known but little or not at all, a slight hint casually thrown out to aid the child is quite permissible.

A catch word, a gesture, an emphasis, would promote the one object, and destroy the other. But as examination must always follow teaching, the *exact* answer must at some time be insisted on.

All these make preparation a great advantage, if not an absolute necessity.

And how can all these requirements be so satisfactorily secured as by previous thought and study? Men of great skill and intelligence may certainly avoid many errors without much previous preparation, their tact enabling them to examine and even teach very creditably, after merely hearing the class read; but this is no argument against the necessity for previous study; for how many are not so gifted! and even in their case they must have studied at one time to have acquired their present skill, and no matter how great that skill may be, even they themselves would teach much better did they arrange beforehand what they were going to ask, and how they were to ask it!

Something can, however, be done without previous preparation.

Many men hold that nothing can be done at all without previous study. I do not agree with them. There appear to me to be two ways of teaching a lesson, both much better than those in common use—one, where the facts of the author only are touched upon, as in the questions already given upon the 'ant,' and the other where these facts are explained, expanded, and classified, as in the sketch which immediately follows these questions.[1]

The first kind can, by no means, be called a *bad* lesson. It is simply imperfect; and yet such a lesson can be taught by any experienced and intelligent man without much, if any, previous preparation. It is a kind of lesson that all must learn to give, because, sometimes, pressing business may prevent previous study altogether, or one may be called upon to examine at a moment's notice. It is therefore valuable, so far as it goes, and in its own way.

---

[1] See pp. 63 and 64.

But when excellence is sought preparation becomes essential.

But when teachers aim at excellence, careful study beforehand on each lesson becomes essentially necessary; and as a conscientious man will ever struggle to attain, in the discharge of his duty, the highest excellence he is capable of, that teacher is unfaithful who neglects this means of arriving at success.

To aid him he should make out *Notes of Lessons.*

Objection to 'notes' often met with.

To aid him in this duty, he should arrange his remarks systematically, or, in other words, he should make out what is called *notes of lessons*. The notes that I have seen are not in my opinion the best adapted to teach a reading lesson. They are all too complete, and look too much like what an author would draw up were he about to write a *regular treatise* on the subject matter. They begin at the very beginning of the subject, and thus, for the sake of a logical arrangement of all the parts, they deal extensively with the most uninteresting portion of the lesson, and sometimes even absorb the whole of the allotted time in this. Some notes, also, are arranged in the form of question and answer, and thus become a mere catechism, deficient in elasticity, and admitting of no adaptation to the trains of thought which the answers of the children must suggest. Others, again, deal too much with the meanings of words and phrases, with roots, etymologies, &c., and are so far not notes of lessons at all, but aids to intelligent reading.[1]

---

[1] Mr. Moseley, in his Report on Male Training Schools (Min. of Council, 1854–5, p. 296), shows so clearly the defects of Notes of Lessons, that I quote his remarks in full. He says:

'Although to the success of a lesson it is necessary that the subject-matter of it should have been well studied by the teacher, yet it is questionable whether notes prepared beforehand, such as those commonly used by teachers, are not a disadvantage. Certainly, the unsuccessful lessons which I have heard have often appeared to me to have been spoiled by the "notes." It is one characteristic defect of these notes that they make the plan of the lesson too complete—more

I have already referred to the marginal notes, which in my opinion should be made by every teacher, in his own set of the lesson books. Were

Form recommended.

complete than any lesson that can be really taught to children. They begin at the very beginning of the *subject*, where a lesson never ought to begin, because that is a part which can rarely or never be understood by children, and which, in most subjects, is not understood by anybody. A lesson for poor children ought to begin and to end with so much as contains subjects intelligible to them, and useful for them to know. *Completeness* is of no use to them when it lies beyond these limits. Another evil of this completeness of the lesson prescribed by the "notes" is, that it is arranged under so many heads; that only two or three of these can be got through in the time; and, as the lesson begins at the beginning of the subject, these two or three first heads are precisely those least likely to be understood, or to be of any use.

A full mind recommended.

'If the master, having first well studied the subject of his lesson, had come to it with a full mind, trusting to his experience as a teacher to make the best of it, he could not, looking the children full in the face, have been guilty of the absurdities which, in his own room, with his books before him, he has committed in the shape of notes. One of the defects of lessons, arising from the use of notes arranged according to some type which the teacher has learned to regard as logically adapted to all lessons (subjecting the subject to the notes, rather than the notes to the subject) is *this*, that such a lesson almost invariably passes into mere *word* teaching; and into the teaching of the *same* words, being for the most part words applicable to the qualities of many things. An example, which I have recorded *verbatim*, will make this more apparent than any explanation I can give. The subject of a lesson was "gold." The teacher began by saying that he should speak first of its *qualities* (guided in this by his notes). "But," said he, addressing himself to the children, "what do I mean by a 'quality?'" This question might have puzzled a class of older metaphysicians; however, to my astonishment, an intelligent child answered that it was a "property." This being accepted as an explanation of the term, the teacher proceeded to elicit (for he used the interrogative method) that gold was "ductile," that it was "malleable," that it was "adhesive" (?), that it was "inelastic," and "yellow." And when he had explained to them that it was found in "sandstone" and "quartz," and that "quartz" was "metallic stone" (?), the time allotted for the lesson had expired. I have made an omission which I will now supply. It was the only passage of the lesson which seemed to awaken the interest and fix the attention of the class, and was perhaps the only one of which any traces would be found in their minds, when the lesson was finished. He these classified and arranged, they would constitute the best form of notes, and the most easily applied in practice.

Three examples.

The following may be taken as specimens. The first two lessons being taken from Book III. of the Commissioners of National Education in Ireland, and the remaining one from Book II. of the Graduated Series of Longman and Co.

The Fox.

The text.	*Its extension, &c.*
1. *Description.* Of the dog kind — brown colour, sharp muzzle — ears small, erect, coming to a point — tail straight, bushy—top white—voice, a yelping bark.	Wolf, jackal, hyena, &c., of the same kind. Refer also to lesson previously read (called the Dog and his Relations) — colour in northern regions variable — in this country a reddish brown — called in Irish, owing to his colour, the red dog—Arctic fox, white in summer, brown in winter, changes like the ermine—obliquity of the eye gives a cunning look.
2. *Locality.* Found everywhere—lives in dens or burrows.	Few animals met with in all climates—adapted to each by change of fur and colour —takes up his abode in plantations and low brushwood—near farm-houses, to lie in wait for fowl—sometimes in mountain wilds.

---

told them that gold dust was found in Africa, in the sand of rivers; that the sand was washed away from it; and that it was kept by the people of the country in quills, which the women hung round their necks. I do not vouch for the accuracy of this information; but, supposing it to be true, it may serve as an illustration of that kind of knowledge of other countries, of like kind to the knowledge familiar to a child's observation in its own, which is likely to remain longer in its memory, and to be more suggestive than any other. The abstract qualities of things do not furnish such topics, or the very beginnings of the knowledge of them; nor do they require that the terms in which they are discussed, so as to be intelligible to children, should first be logically defined.'

The text.	*Its extension, &c.*
3. *Food.* Hares, rabbits, poultry, feathered game; moles, rats, mice, *fruit*—takes hares by the scent—hunts at night.	Will also eat toads, lizards, insects, if very hungry—eats honey also, kills the bees and wasps to get it, though receiving many stings (anecdote of fox and bear about honey)—hunts from evening to morning; the animals on which he lives are then at rest, or, like the rabbit, out feeding—does not need sight much, as he hunts by scent—when in poultry yard, kills all he can get—drags off and hides—carries them slung over his shoulder.
4. *Harm he does.* Destructive to poultry and game, lambs, &c.	These evils can be prevented by care, to a great extent.
5. *Use.* Destroys noxious animals—fur valuable for garments, ladies' tippets, &c.—affords amusement to gentlemen hunting—flesh eaten in some places.	Feeds chiefly on noxious animals—the fur of the foxes best in *cold* climates—hunting cruel, but improves the breed of horses, &c.—will take her cub, when pursued, in her mouth—brush a trophy.
6. *Character.* Great endurance in running—been known to run fifty miles, and escape—his cunning in taking prey, and avoiding enemies—anecdotes of.	Give one or two more simple and short anecdotes.
7. *Scriptural allusions.* Samson burned the cornfields of the Philistines—Herod was called a fox by Christ. Our Saviour affectingly alludes to it, when he says, 'The foxes have holes,' &c.	'Go tell that fox, behold I cast out devils,' &c.

THE REINDEER.

1. *Description.* 4½ feet high—back and sides brown, belly white—grows white as he grows old—horns long, slender, and branched—male's horns largest.	This is minute enough for all the purposes of an ordinary lesson. Show the class the print of the reindeer.

The text.	*Its extension, &c.*
	(Chiefly from Brooke.)
2. *Locality.* Northern regions of the old and new world—hilly parts of a country in summer, to avoid the gadfly.	Reindeer of Lapland and Finland best—those of Norway and Sweden not so strong or large—move in *droves* from hills to lowlands. Gadfly lays an egg in each wound—hatched by the heat of its body. As Laplanders cannot live without the deer, they move from place to place with them—return to woods in September.
3. *Use alive.* Whole wealth of Laplander—*rich* man has 1,000—supplies place of cow (milk and butter)—of horse, (carrying its owner in a sledge, traveller tied in this sledge; it is like a boat—pace, half-trot—feet spread to keep on snow)—of the sheep and goat—*when dead*, spoons are made of its bones, glue of its horns, thread and cords of its tendons—clothes of its skin, and its flesh is eaten.	With 300 to 500 a man can live comfortably, can make butter enough, and kill sufficient for food and clothes. With 200 he can live tolerably. With 100, poorly. With 50, he becomes a servant, and must join his stock to some rich man's. Butter very palatable. Will carry 2¼ cwts. at the rate of 10 miles per hour, 150 miles in 19 hours, or about 8 miles per hour, without stopping. One went 800 miles in 48 hours, but died afterwards—his picture is kept in palace of Stockholm. Travel in *herds*—a long line, the second almost touching with its nose the back of the first traveller—will not deviate from this. If any left behind, he will follow the others by the scent. Many travellers saved by this quality in the reindeer.
4. *Food.* In summer, various plants—in winter, lichen from under the snow, or on trees	Nothing but lichen grows in winter, called grey reindeer moss. A barren tract covered with this a valuable property—no hay in winter. If, therefore, rain falls, and ice succeeds, the animals die, and many Laplanders also.

A NOBLE ACT.

(Book II. Graduated Series).

1. *The actors in the story.* An old man, wealthy—three sons.	Nothing necessary in the way of expansion.

The text.	*Its extension, &c.*
2. *Division of property.* Father divided all the property among his sons, except a valuable jewel—this to be given for the most noble act performed within three months.	The usual course is to divide property after death of owner, by will—property generally left to eldest son, &c.
3. *The acts performed.* First, eldest gave back money entrusted to him, for which the owner had no receipt, and took no recompense—father said the act was one of *justice*.	This an act of strict honesty, deserving of great credit. Many persons would think that, because the *law* would not compel them to pay the money in such a case, they need not do it; but not to do it would be, in reality, to steal it.
Second son saved a child's life at the risk of his own, and brought it to its mother—father said this was but the *instinct* of human kindness.	This is a more praiseworthy act than the first. All are bound to be honest, but none are bound to put their own life in danger. It shows great courage, great humanity, and great forgetfulness of self.
Third act. Youngest son found his enemy in danger of death, yet rescued him—he got the jewel.	In this case, the person dealt with is an *enemy*, one whom the tendency is to injure; whereas, in the other cases, the persons were strangers, who had, to a certain extent, a claim upon the good offices of their fellow-creatures. He might have gone away and left the enemy to perish by his own act; but instead of that he *saved* him. It thus combines magnanimity, generosity, and the noblest triumph over the worst passions of our nature.

General conclusion. It is much easier to overcome temptations to dishonesty, or to encounter physical danger, than to do good to an enemy when we have it in our power to injure him with impunity. Revengeful passions are strongest, and require the most control.

'Notes' solely of use when preparing.

It must be remembered that these 'notes' are solely to assist the teacher in *preparing* the lesson. No good teacher will willingly use them when

Must teach without them.

actually before his class. A constant reference to notes would make the best prepared lesson tame and lifeless. The teacher should, therefore, study them so carefully, so completely, and so accurately, that he could enumerate without reference to them every statement in the lesson book itself, every case in which he proposes to illustrate and expand them, and to what extent, and be able to tell the exact order in which he will lay the entire facts before the children. He will thus be capable of examining, with the book closed, which is at once the best test of preparation and the best means of giving a lesson.

Some special remarks on special lessons.

These remarks and rules apply to the teaching of nearly all the lessons, but there are a few which require some special notice; as, for instance, the *fables*, *stories*, *poetry*, and *the lessons in monosyllables.*

(1) Fables, &c. how to deal with.

The object of the lessons called fables, and the object of many of the stories contained in the reading books, is chiefly to illustrate and thereby inculcate some moral truth, and this can be fully attained without such a minute analysis of the text as I have recommended for the other lessons. All that is necessary is to question the children upon the truth itself (making it as plain as possible by suitable explanations, as in example p. 85), and upon some few of the leading incidents brought forward to establish and explain it. This, in general, will require but little time from the master, for the lessons are so clearly written and so homely in style and matter that they are fully within the unaided comprehension of the children. I therefore think that the master should chiefly devote his attention to those lessons that imperatively call for his explanations. I do not wish to convey the impression that the others are to be neglected, or that the inculcation of moral truths by such means is a matter of secondary importance; I merely wish to state that it appears to me to be highly absurd to take up the particulars of such narratives, sentence by sentence, as some teachers do.

To be read at home. The children should be induced to read these lessons at home—there will be no difficulty in doing this, as the form in which they are written has a strong attraction for them,—and then some convenient time should be selected to test their knowledge of the objects which the lessons had in view. Or if these are read in the school, they may be used chiefly to teach *reading*, each lesson always finishing, however, with the necessary reference to its *moral*.

(2) Poetical lessons. With regard to the poetical lessons which are so plentifully scattered through all the books, I think they should be not only explained and taught as the others, but they should also be committed to memory.

Value of. Poetry embodies in a pleasing and easily remembered form many moral and valuable truths. The study of it softens and refines the feelings, raises the general tone of the mind and of our thoughts, makes us familiar with the beauties of our language, and brings us into direct converse with some of the best and greatest of men. There can be, also, no better means for developing the taste and storing the memory with a choice vocabulary than an extensive and careful study of poetry; but it is necessary to study it under the direction of competent masters at first, and also to commit it accurately to memory.

Must be explained before committal. Before children are allowed to commit any piece to memory, whether prose or verse, the meanings of all unusual words and the general sense itself must be fully explained. They should read it over in the presence of the master, who should accompany this reading with suitable explanations, giving the meaning as briefly and clearly as possible, and then, *but not till then*, should he direct the boys to get it off. The best and easiest function of the memory is to register what is understood. Such previous explanation will, therefore, not only make the matter itself more intelligible, but it will render it more easily committed, and cause it to be remembered for a longer time.

If not done, inexact, repetition &c. will be produced.

When this is not done the pupils are very inexact in the committal, and too frequently, when repeating it before the master, they utter, instead of the words, unintelligible sounds akin to them. The Rev. Mr. Brookfield, one of Her Majesty's inspectors of schools for England, gives two very forcible examples of this defect. In his examination of some Sunday school children he obtained the following replies to the questions, 'What is thy duty towards God?' and 'What is thy duty towards thy neighbour?' 'My duty toads God is to bleed in him to feering and loafing with old your arts, with old my mine with old my sold, and with my serenth, to whirchip and to give thinks, to put my old trust in him, to call upon him, to honor his old name, &c.;' and again, 'My dooty tords my nabers to love him, as thyself and to do to all men as I wed thou shalt do to me, to love honner and suke my father and mother, to onner and bay thee Queen.'

Mr. Brookfield's examples of want of.

These replies were given in writing by the two children, after, in each case, about four or five years' teaching. Such defects could exist only in very inferior schools indeed, but in a less degree they are to be met with in many, from inattention to exactness in utterance when repeating from memory, and to the neglect of applying the same written test that the inspector applied. The written test may be applied during the ordinary dictation exercise, and instead of that exercise. I am myself in the habit very frequently of varying the dictation exercise in this way. My custom is to require each boy to write down any piece which he may select himself, depending solely upon his memory for the words, and I find many errors similar to, but none so bad as, those above.

Pupils should write the poetry from memory.

None but the best poetry, however, should be selected, and the pupils should, as Dean Dawes suggests, be required to quote it at every fitting opportunity. If, for instance, a word occurs in one passage of peculiar application, the children should be required to quote other passages where it is used in the same way; or they may be required to quote poetical descriptions of objects, of scenery, of countries, &c., thus making them thoroughly familiar with our best authors, improving their taste and manners, giving character to their reading, and enabling them hereafter to make a proper choice of books.

Pupils should quote poetry occasionally.

I see that in England the pupil teachers are required to study poetry. In Mr. Mitchell's report for 1859, he says, that those of the first year should know Goldsmith's 'Traveller' and the 'Deserted Village'; for second year, 'Lay of the Last Minstrel' (three cantos) and two cantos of 'Marmion'; for the third year, two books of 'Paradise Lost'; for the fourth year, 'Dryden's Æneid' (two books); and for the fifth year, two acts of any of Shakespeare's plays, or two books of Young's 'Night Thoughts.' Something akin to this should be required from all teachers in Ireland presenting themselves for promotion.

In England a knowledge of the poets is required from pupil teachers.

This should be extended to Ireland.

The study of poetry, however, not only improves the taste of the children, and the quality of their reading, but it cultivates and strengthens the faculty of memory. That this faculty is not sufficiently attended to is a charge brought against the present system of education. This, though true to a certain extent, is by no means true to the point they say, or in the sense intended. In the old system of teaching facts were heaped on facts, without assimilation or arrangement, and thus memory alone was taxed; but in the present system we explain and then call upon the memory to record what is understood. This it does naturally of itself; and although there may not seem to be any special cultivation of it, the very fact of registering such things as are thus presented to the understanding improves its powers.

Memory not cultivated in present system of education. Not true to the full extent intended.

In the old system the food lay crude and undigested, annoying and injuring so long as it remained, and ready to be thrown off at the smallest provocation; while in an intellectual system, as the present ought to be, the food is of the proper kind, properly administered, and fully assimilated. The charge, therefore, that the understanding is cultivated at the expense of the memory is not true, in the proper acceptation of these words; nor indeed could such a thing be possible, for what the mind knows fully it registers and remembers.

Mr. Keenan's views.

The memory, however, like all the other faculties, requires special training, and this it does not sufficiently receive in the present system. Mr. Keenan, Chief of Inspection, in his report for 1855,[1] says, that 'teachers appear to be afraid to call the *memory* of their pupils into exercise. Rote learning, which means learning that begins and ends in the memory, and which has no association with the understanding, has been so unequivocally condemned, that inexperienced teachers think memory is not to be used at all, or only as a depository of the impressions of the judgment. But look at fifty things we must learn while relying entirely upon the memory.. Music is impressed upon our ears without any exercise of the understanding, and children acquire language through the power of memory alone. Mere rote work is condemned as a system of teaching, but what is called "committing to memory" can never be dispensed with as a matter of learning.'

Dr. Newell's.

Dr. Newell, Head Inspector, in his report for 1856,[1] has the following:—'The cultivation of the memory has not, in my opinion, received due attention in our schools. I am, by no means, an advocate for mere *rote* lessons, or for burthening the memory of a child by requiring him to repeat columns of words, or to rehearse rules of syntax or arithmetic in their precise terms; but I do say, that if pupils were to learn by heart occasionally many of the prose passages and most of the poetry in the Boards' Books, much of which is calculated to awaken the purest sentiments, and to lead to moral reflection, the practice would prove a healthful exercise of the memory, which, to use the words of a deep thinker, must be exercised in the education of a people, as in that of an individual, before the powers of reason and fancy can be expanded.'

---

[1] Reports of Commissioners of National Education, Ireland.

Views of Her Majesty's inspectors. Mr. Marshall

The English inspectors are nearly all of the same opinion. Mr. Marshall says,[1] 'It was never intended that teachers should neglect the memory; and this, from want of due consideration, many of them seem to do. Formerly, almost everything was "learned by heart"—a process so superficial and irrational, that it may be fairly doubted whether even the memory, which naturally refused to retain what it could not digest, gained by it in the long run; and now, by a curious reaction, the immense importance of this faculty is overlooked.'

Mr. Morrell.

Again, Mr. Morrell says,[2] 'So strong has been the reaction against the old *memoriter*, or *rote* system, that nothing (it is frequently imagined) can be at all serviceable for true mental developement, except direct appeals to the perceptive faculty on the one hand, or the reasoning powers on the other. . . . It does not follow that because *rote* teaching is essentially and intolerably *bad*, therefore nothing should be learned off by memory and repeated by rote *at all.* Exercises of this kind not only strengthen that most important faculty, but aid in storing the mind with numerous and valuable ideas, that become, as it were, the necessary furniture, and the inward supply for future intellectual use.'[3]

---

[1] Min. of Council, 1855, p. 618.

[2] Ibid. 1854, p. 614.

[3] For further remarks upon the study of Poetry, and the Cultivation of the Memory, see Min. of Council, 1847–8, vol.

The fact is, that it is impossible almost to cultivate any faculty too highly, whether it be the memory or any other, provided always that proper steps are taken, and the proper balance of all carefully maintained.

Faults of teachers at present.

The teachers, at present, either do not insist upon the committal to memory of the poetical lessons, or else they allow the pupils, when saying them, to speak without clearness or feeling. But both these faults require immediate correction. All these lessons must be got off, even by the youngest children, for they are generally written in a style adapted to them; and when repeating them it is impossible to take too much care to make the utterance what it ought to be.

If the recitation were in some cases made in the presence of the whole school, and if some little pomp and show were occasionally attached to it, the good effects of the exercises would be enhanced.

Final exception—First Book.

Finally, the First Book is of very special character, and requires special treatment.

Two classes of sentences in the book, with examples.

The little sentences may be divided into two classes —(1) those containing useful information, and (2) those of no practical value. In the first we have, for instance, the following:—

Moral Sentences.

God loves us, and sent His son to save us.
If we are bad, God will not love us.
Sin is the cause of all our woe.
A good boy will not tell a lie.
A child of the dust should not be proud.

Sentences about Animals.

The owl sleeps all day, and seeks its prey by night.
Frogs croak; sheep bleat.
We get oil from the whale.

---

ii. p. 188; 1848–9, vol. i. p. 119, vol. ii. pp. 472 and 473; 1854–5, pp. 294 and 475; 1855–6, p. 619; 1856–7, p. 238; 1859–60, p. 195; 1860–1, pp. 62, 188, and 259; 1861–2, p. 174.

An ant is wise in art.
A wolf is a beast of prey.
A shark is a large fish.

Sentences about Vegetables.

Bread is made from flour, and flour from wheat.
We get galls from the oak, but they are not its fruit.
Tea is the leaf of a plant.
My shirt is made from flax.
A rope is made from hemp.
Tar is got from the pine.

Miscellaneous Sentences.

We get coals from the earth.
We get quills from the goose.
Tears wash the eye.
Fire will melt tin.
Cheese and whey are made from milk.

And in the second class, we have the following and all similar sentences :—

Jane will not drink wine.
A wet mop hit my face.
John is a good boy.
I fear it will rain.
The boys gave a loud shout.
That fierce man is chief.
Ned broke his leg.
The glove is worth threepence.

Their difference.

It is obvious that these two classes stand upon very different footing. In the latter the sentences may be true or false, and the child may or may not know them without the smallest advantage or disadvantage. For instance, it is perfectly immaterial whether 'This glove be worth threepence,' as stated, or tenpence; whether 'Ned broke his leg' or whether he did not; whether 'The boys gave a loud shout' or did not shout at all.

This is not the case with the other sentences, for they contain information relating to the external world in which the child is placed, and to their moral obligations, which they can hereafter apply with advantage.

One to be explained and the other passed over.

It is the teacher's duty, therefore, to omit all consideration of the meaning of the sentences in the one class, while it is equally his duty to see that his children understand the meaning of those in the other. The facts, indeed, are very simple, but they cannot on that account be treated cursorily, for it is their very simplicity which renders them adapted to the minds of the young children who read them; and, besides, not one of them is so simple but that, in the hands of a skilful man, it can be made the means of calling forth the thoughtfulness and intelligence of the child.

No difficulty in framing questions.

The teacher will find no difficulty in framing the questions in the way best suited to elicit the required information, for each sentence contains but one idea, and this idea is very plainly expressed. He has merely to understand the fact himself, in which he cannot possibly fail, and then to frame his question in homely words.

Questions must be modified in accordance with the object in view. Example.

Care must, however, be taken to modify the question in accordance with the object in view. Thus, for instance, the sentence, 'Tar is got from pine,' admits of two forms of question. I may ask, 'From whence do we get tar?' or, 'Can you name some of the uses of the pine tree?' In the one case the object is to call the child's attention chiefly to the substance called *tar*, and in the other case to the tree called *pine*. In the one case, the question might naturally be followed up by an enumeration of the other sources from whence tar is procured, and in the other case the question might be followed up by an enumeration of the different articles got from the pine tree, and probably a very casual reference to a few other trees with which the child is familiar. Each question could be made the means of causing the child to observe and reflect, but the train of thought and the points of observation would obviously vary very considerably. The teacher, therefore, must necessarily form his question in accordance with the channel into which he wishes to direct the current of the child's ideas.

As my remarks upon the meanings of the words, upon rote questioning, &c., already given, are applicable to this book, as well as to the others, it is of course unnecessary to repeat them here. I shall merely remark that, whatever disadvantages attend the errors pointed out for the senior classes, they are vastly increased in the lowest class, and therefore they should, if possible, be even more carefully avoided in teaching it than in teaching the others.

I think if these suggestions are carried out intelligently they will lead to success; and I do not think that, like some others usually given upon this subject, they trench unduly upon the extra hours of the teacher. They certainly require zeal and faithfulness, carefulness and attention, but no more than any honest man daily gives to the discharge of his duties.

CHAPTER III.

SPELLING.

Spelling not formerly important.

MANY years ago the orthography of words was so unsettled and arbitrary, that but few persons agreed as to the precise letters required to represent any sound. Learning to spell was, of course, in such an age, of very slight moment, but since the time when a fixed standard became universally admitted any deviation from it has been strictly condemned—condemned, probably, with even greater severity than any other defects in education. Deficiencies, for instance, in our knowledge of grammar, or geography, arithmetic, &c., are blamed very differently by different people, according to the value each attaches to the subject itself. By some they would be very strongly condemned, by others very slightly, and by some not at all; but defects in spelling are condemned by everyone, and taken as satisfactory proofs of a neglected education.

Errors of are now strongly condemned.

On the other hand, correctness valued highly.

On the other hand, however, as spelling is learned by reading, correctness in orthography possesses, what correctness in other subjects does not, a value independently of itself.

An evidence of frequent and attentive reading.

It is an evidence of frequent and attentive reading; it affords some insight into the literary habits of others, and carries with it a presumption of higher acquirements.

It would be wrong, however, to conclude from this that *bad spelling* is an evidence of *little reading*, as errors are very frequently produced by carelessness, by scribbling, by abbreviations in writing, &c., the eye becoming from such causes so accustomed to irregularities that its impressions are distorted and false. Many very extensive readers, solely from being large annotators, spell very incorrectly and doubtingly.

Bad spelling not however a proof of little reading.

This conclusion, though unwarranted, is nevertheless so very generally held to be true that the man of whom it is said, 'He cannot spell,' 'He cannot write a plain letter without errors of orthography,' will be treated as illiterate, no matter how many sterling scholarly acquirements he may possess.

Though it is generally thought to be so.

Considering, therefore, all this, and considering also that there is no subject more easily learned, provided only that it be taught upon correct and sound principles, carefully carried out from the very first, or that there is no deficiency of elementary instruction so difficult to remedy in later years, when the mind grows less impressionable, it would not, I think, be too much to expect that, in primary schools, every possible means would be taken to produce accuracy of spelling, and that none whose education had been extensive would fail when put to the test.

Not too much to expect, therefore, that spelling would be well taught in primary schools.

The contrary, however, is just the case. The *Times*, referring to examinations made by the Civil Service Commissioners, says, 'that of the 1,972 disappointed candidates, *all except* 106 were rejected for the same species of defect. They had either no knowledge of arithmetic, *or they could not spell.* Of course,' it adds, 'these imperfections were coupled with others, but, as a matter of fact, *orthography* and arithmetic were the real stumbling-blocks in the way of success.'

The contrary the case. Proof from Civil Service examinations.

There can be no more reliable test of the merits of the present systems of teaching spelling, and no more sweeping condemnation.

By the old plan of teaching this subject, the pupils

Old method

of teaching by use of dictionaries, spelling-books, &c.

were compelled to commit to memory the uninteresting and disconnected columns of the dictionaries, expositors, or spelling-books in common use. They were obliged to go over and over them, again and again, without the smallest aid from association of ideas, until it was supposed that the whole were mastered. Such a system was barbarous. It was a drudgery more useless, more stupid, and more hopeless than to commit to memory all the pages of an almanack.[1]

It possessed three defects (1) laborious and hence creative of distaste to all learning; (2) not applicable to the junior classes; (3) not successful.

It possessed three great defects. (1) It was laborious, and made learning distasteful. (2) It could not be applied to the junior classes; and (3) it was *unsuccessful.*

Labour enormous.

First. The labour of such a system must have been enormous. Every little fellow was, in fact, a small Hercules, daily engaged in a task from which the son of Jupiter would have retired in dismay. And what else could be produced in the minds of the children from such drudgery than the firmly rooted, though fallacious conviction, that the path of learning was so covered with thorns, and barren of all pleasures, that they were fools who trod it, except they were, like themselves, not free agents.

Made study distasteful.

But study ought not to be so.

This I have said is a fallacious conviction, for, in my opinion, the true path of study is neither toilsome nor disheartening. There are certainly many difficulties which it is necessary to encounter, but when the mind is acting naturally, and, as a consequence, correctly, *I hold that it takes a pleasure in overcoming them.* They are, in fact, essential for its healthy development, and contending with them produces, like physical exercise, not only strength but pleasure, provided always that nature's laws are observed.

Pain is no more an inseparable attribute of mental than it is of bodily action. Its function is to warn.

---

[1] Thayer.

Without physical suffering we should destroy our bodies, as the horse, upon whom the 'nerve operation' has been performed, does, when he unconsciously batters his foot to pieces upon the stones. Mental distaste and annoyance are given to us for the same wise purpose. They are not only not necessary adjuncts of progress, but they are specially given to warn us that what we consider is the best way to promote success is in reality injurious. There is, indeed, in one sense, no 'royal road to knowledge,' but there is a road so smooth as to be easy and pleasant, or in which the difficulties are but pleasures in disguise.

2. Junior classes could not prepare.

Secondly. By this system spelling could not possibly be taught to the junior classes, as young children unable to read were incapable of preparing the tasks of which the spelling lesson consisted. And hence it happened, that many were obliged to leave school before commencing to practise spelling at all. The extent of such an evil will be correctly estimated by those who know how very many children must necessarily be always in the junior classes, and for how very short a period children remain in our primary schools.

3. Ineffectual.

Thirdly. Even supposing that it was not laborious or confined to the senior classes, it would still be open to the overwhelming objection of being ineffectual. No memory could possibly retain all these endless columns of disconnected words. They have nothing attractive in themselves, they have no bond of union by which the mind can be brought to consider them as a whole, and, as a necessary consequence, the picture so laboriously impressed to-day, must give place to a new one created by the studies of to-morrow.

'Months and years are devoted to the undertaking, but after going through the whole spelling-book, perhaps a whole dictionary, till we can triumphantly spell *Zeugma*, we have forgotten how to spell *Abbot*, and we must begin again with *Abasement*.'[1]

Made worse by the introduction of certain obsolete and useless words.

But unnatural and ineffectual as this laborious system was, it was made worse by the way in which it was carried into practice. The columns over which the children were forced to pore for so many weary years, contained many words so far beyond the comprehension naturally expected from young children, that even teachers who saw the necessity for it, could give them no assistance whatever from the associations of the understanding, and, moreover, they contained words rarely, if ever, used, and some even entirely obsolete; such, for instance, as *hight*, *wive*, *wot*, *zeugma*, &c. The same time and the same labour were spent in getting off such words, and the same accuracy was required, as in the case of words whose constant recurrence in ordinary discourse gave them importance.

Nearly extinct, though its successor is little better.

This system is nearly extinct, but that which has taken its place still partakes too much of its character. Dictionaries are indeed dispensed with, and the spelling-books in use are of a better description than before, but the pupils are still forced to commit tasks to memory without proper explanation, and are allowed to answer solely by rote. In many cases, also, the small columns of the lesson-books are committed to memory, just as the larger columns of the old expositor were formerly, or the pupils are called upon to spell isolated words taken at random from the reading, — defects which vary very little from the system just treated of.

I trust the time is not very distant when this also will be changed.

Founded upon the error of supposing

That it is the *sound* or *pronunciation* of the word which chiefly guides us in spelling, was the error into which those who invented the old system fell, and it was from this mistake it had its rise. Pronunciation has certainly something to do with correctness,—or rather errors of pronunciation produce errors in spelling, as, for instance, *perventiv*, *nomatif* (case), *nutur* (verb), *singlar* (number), *feruitful*, *tunder* (thunder), &c.; but we learn to spell not from the *sound* of the word, though inattention to sound is a prevalent cause of confusion, but from its *appearance*. Take the word 'dangerous,' for instance: the sounds which compose it are, *dane—jer—us*, but the letters which represent it are *dee*, *a*, *en*, *gee*, *eer*, *o*, *u*, *ess*.

---

[1] Edgeworth.

that we spell by ear.

Errors of pronunciation will produce errors of spelling, but correctness of pronunciation will not produce correctness of spelling.

There cannot be two things more dissimilar. How, therefore, can the one guide us in the selection or arrangement of the other? The sounds can neither tell us what the letters ought to be, nor can the letters give us a clue to the sounds.

And when such is the case in so simple an instance, how could we look to the sound in such irregularities as *hiccough*, *laugh*, *plough*, &c.; or when the same sound must be represented by different letters, to express a difference of meaning?[1] Pronunciation, instead of helping us, is in most cases the cause of failure; for often, when in doubt, we spell phonetically instead of truly.

It is the pronunciation that actually leads us wrong.

The fact is, that the name and powers of letters are very arbitrary, and have little or no connection with their sound.

Others believe that we can learn to spell by analogy, but such a system appears to me to differ very little from guessing; it is guessing with the

Others believe that we spell by analogy.

---

[1] Dr. Sullivan says on this point—'The sound or pronunciation of a word will not enable us to spell, because the same sounds are often represented by different letters. The words *mete*, *meet*, *meat*, for example, are spelled differently, though the sound or pronunciation of each is the same. To spell a word, therefore,' he adds, 'we must be well acquainted with it; we must know its meaning (its application in the particular case), and the identical letters which compose it.'

But this is mere guessing.

chances in our favour of guessing correctly, but it is guessing after all. And as guesses are more frequently wrong than right, he who takes analogy for his sole guide will, I am afraid, be found to fail oftener than to succeed.

Example.

Take a simple case. Suppose I know that the letters h-a-t spell *hat*, m-a-t spell *mat*, and f-a-t spell *fat*, shall I be justified, knowing what our language is, in saying that h-a-v spell *have*, g-a-p spell *gape*, or s-a-d spell *sad*? And yet it is to such a conclusion spelling by ear or analogy would lead me! It is, indeed, true that s-a-d spell *sad*, as it is untrue that h-a-v spell *have*, but whether the results are true or false the guide is equally unreliable, for there is nothing in the conformation and construction of our language to authorise me in drawing any conclusion whatever. When the letters do happen to spell the word, all I can say is, that the guess is a good one; and when they do not, that the guess is wrong. But in both cases there is the same absence of a guide, in the true sense of that term.

Edgeworth's opinion.

Use of analogy.

'The understanding,' as Edgeworth says, 'has nothing whatever to do with the business.' I admit, however, that analogy can be used judiciously in enabling a child to understand the sounds of certain letters in certain words; as, for instance, when he spells *den*, I may get him to spell *pen*, *ten*, *fen*, &c.; which, *from my own knowledge*, I am aware follow the same rule. But, in fairness, I must tell him also, that adopting this course would be as likely to lead him into error as not.

Others think we learn spelling by rules.

Objections to.

Others think that we can learn to spell by rules, and for this purpose they have drawn up a series of these intended as guides to the spelling of certain classes of words. But, to be practically available, they must either be so worded as to admit of no exceptions, or they must give at the same time *all* the exceptions in the language. Our language, however, is so irregular, that there are very often more exceptions than examples, so that it is almost impossible to remember them. Frequently the exceptions are also arranged into subsidiary rules which have in their turn exceptions, which must be remembered by rote as the others. And thus we have rules within rules, and no end of confusion.

The best spellers I know of never learned a rule, and some of the worst among the teachers and advanced pupils can repeat flippantly the very rules of which their written exercises contain frequent violations. Rules of spelling are something like rules of grammar, learned, repeated, and understood, but not effectual.

They may be learned, but the pupils should be taught to frame them themselves.

How they can do this.

As a matter of interest, and, in some cases, of benefit also, these rules may be studied; but I think that, instead of committing them to memory in the first instance, the children ought to be enabled to frame them for themselves. This they can do by laying before them a number of words which follow some one common plan. For instance, in *conceive*, *receive*, *deceive*, *perceive*, we have the sound of *eeve* represented by the letters *eive*, whereas in the words *relieve*, *believe*, *grieve*, *thieve*, *reprieve*, &c., the same sound is represented by the letters *ieve*. The child may be brought to see that it is the preceding consonant which determines the order of the letters. In the first words the consonant is *c*, and in the others it varies. He may hence draw the following rule: — *As the diphthongs* ei *and* ie *have the same sounds in the terminations* ieve *and* eive, *the learner is often at a loss to tell whether the* e *or the* i *should come first, as a general rule it may be laid down that* e *follows* c, *and* i *all other consonants.*[1]

Good spelling depends on the eye.

If, therefore, good spelling does not depend upon *sound*, or upon *analogy*, or *rules*, upon what does it depend? My impression is that it depends very much, if not altogether, upon the *eye*.

---

[1] See Dr. Sullivan's Spelling Book Superseded.

Proofs.

(1) Writing two forms of a word will determine the correct one.

If one is in doubt as to which of two ways he will spell a word, he can usually convince himself by writing it down under both forms, and observing which of them meets his eye more naturally. The eye in this case is clearly the guide.

(2) The eye will detect a wrong word out of all in a page.

Again, if a person accustomed to reading open any page in which there may be a misspelled word, it is upon that word, as is well known, that the eye will rest. The fact may be thus explained. The eye forms its picture point by point. It rests but upon a single spot at a time, even in the largest landscape, but so rapidly does it pass over all, that it may be said, as in reality it appears to do, to take in the picture as a whole. In passing over the page of a book, all the letters come in succession under its notice, and its attention is naturally fixed by any irregularity it discovers.

(3) No organ so attentive as the eye, or so true.

There is no truer organ by which the mind can be impressed than the eye, and none so attentive. When allowed to act naturally its images are never confused; they are distinct, clear, and easily reproducible by the brain. In this respect it far excels the ear.

(4) Spelling is but the analysis of a picture impressed by the eye.

Every one can easily convince himself how it is that he spells, by noting the process which the mind goes through in any individual case selected. He will soon see that he does not remember the letters and their proper order, in the same way as he recollects any fact or date communicated to him, but that he recollects them something in the manner that he recalls the details of a picture.

If I, for instance, am asked a question about the Mediterranean Sea, the map of the world, from the vivid impression formerly made by a careful and constant study of it, instantly rises, as it were, before me; and as I look upon it, I discover the bays and gulfs of the sea, its straits and outlets, the rivers which flow into it, and the general configuration of its shores, and I can as easily enumerate them as if the map, upon which I seem to gaze, were real and not mental. In the same way, when asked to spell any word, its picture, as it last appeared to me, rises before me, as did the map, and from that picture I can repeat the letters and their order.

(5) Opinions in support of this view.

Spelling is thus after all but the analysis of a picture. The following opinions support this view. Dr. Sullivan says, 'We must know how the word looks, and this the eye will enable us to do, for, as has been well said by an American writer,[1] the eye in such cases may be said to remember.'

Sullivan.

Mr. Keenan says, 'Orthography is, in most instances, a memory of the eye. Were we to spell phonetically, it would, of course, be simply a matter of accuracy of ear; but since the sound of the word in our language is so seldom an indication of the exact letters or syllables which compose it, correctness must be traced to the sense oftenest employed, which is that of sight.'[2]

Keenan.

Edgeworth says, 'Children learn to spell more by the *eye* than the *ear*;' and the *Times*, in the article already alluded to, says, 'The power of spelling is acquired insensibly by the exercise of the *eye*, and that familiarity with the aspect of the words which necessarily follows.'

Edgeworth.

The Times.

Mr. Gill, in his work on School Management, page 121, says, 'The only way to produce words accurately is to make them familiar to the *eye*.' Again, Mr. Parkhurst says, 'The *eye* as well as the *ear* must become familiar with a word before it can readily be spelled.'

Gill.

Parkhurst.

From this we draw two conclusions; (1) that

Two conclusions from this.

(1) Reading and

---

[1] Thayer.

[2] Twenty-second Report of the Commissioners of National Education, Ireland.

writing much are essentially necessary to true spelling. (2) He will spell best who is most susceptible of vivid impression through the eye.

reading and writing much are essentially necessary for good spelling, and (2) that he whose mind is most susceptible of vivid impressions through the eye will spell best.

Opinions:— *Times.* Sullivan. Keenan.

We may also conclude that reading and writing are not merely essentials, but that they are almost all that are required. The *Times* says, 'Spelling is learnt by *reading*;' and again, 'Nothing but *reading* will teach spelling.' Dr. Sullivan says, 'Persons who *write* or *read* much are, by the very acts, correct in spelling.' Mr. Keenan says, 'When teachers become careful and extensive *readers* they will also become good spellers.'

Edgeworth.

Edgeworth: 'The more the children *read* and *write*, the more likely they will be able to remember the combination of letters in words which they have continually before their eyes, and which they feel it necessary to represent to others.

Marcel.

M. Marcel, in his work on language, says, 'The ability to spell correctly is the consequence of familiarity with the written words gained from *reading*.'

Proof from the deaf and dumb and from foreign languages.

If we wanted any additional proofs they could be had in the facts that the deaf and dumb, who are taught solely by sight, seldom commit orthographical errors, and that we seldom make mistakes in spelling Latin, Greek, and other foreign languages, although in their case the power is acquired solely from reading and writing.

Frequent and thoughtful reading and writing would appear to be *all* that are necessary.

All that would seem necessary therefore to produce good spelling is to secure *frequent* and *thoughtful* reading and writing.

The teacher must apply special *tests*, however, &c.

As, however, no teacher can be certain that his pupils will read enough, or with sufficient regard to the construction of the words, it is his duty, in addition to telling them the true means for success, to apply special tests, and treat particular faults as they occur.

Questioning one of these *tests*.

Also an *aid to learning*.

Questioning is one of the instruments which he must use. In some subjects this is a mere test, but in spelling it is a powerful means of effecting improvement and preventing error. When questioning is practised the child's attention is necessarily directed in a special manner to the formation of the words, from the conviction that he will be called upon afterwards to represent them to the master, and being thus specially directed, the impression they make will be more vivid, and, as a consequence, more permanent. The eye becomes, if such a course has been long adopted, so sensitive, that ever afterwards, even when no questioning is likely to follow, it attends carefully to the forms of the words as well as their meaning, and faithfully images the letters upon the mind.

Two ways of questioning. 1 Single words. (2) Sentences, &c.

There are two ways of questioning upon spelling. First, we may give out single words without any connection in sense with each other, or secondly, we may give them out as they occur in the reading lesson.

First most common, the second most rational. Why.

Of these, the first is the most common, but the second the most rational; for as spelling is acquired by reading, the words which form the test should be proposed in the exact order in which they made their impression upon the eye. (1.) By this means the picture is not only not disturbed, but the oral repetition makes it more indelible.

(2.) Spelling is useful for writing, and the words should therefore be acquired in such combinations as ordinarily occur in the pages of a reading-book, or in composition.

This called the system of *spelling from dictation*, and forms the new method of acquiring spelling.

The second method is called the system of *spelling from dictation*, and forms, with writing from dictation, the new and improved plan for teaching spelling. It consists in giving out a sentence or part of a sentence instead of a single word, and it thus not only teaches spelling, but it proves a vigorous exercise of the memory.

Opinions in favour of it. Dr. Sullivan.

Dr. Sullivan says, 'I strongly recommend teachers to adopt it; its practical superiority is obvious. Let the reader who may be disposed to dissent dictate a few familiar sentences in the manner recommended to a young person who has learned orthography from the columns of a spelling-book only, and, unless we are greatly mistaken, the inferiority of the old plan will be evinced by the erroneous spelling of some, perhaps, of the easiest words.'[1]

Mr. McCreedy.

Mr. McCreedy says of it, that 'it seems to be the most successful, and certainly it is the most rational method of teaching spelling.' Mr. Fletcher says,[2] that it is 'as efficient perhaps as writing from dictation without the possibility of copying from each other.'

Wood's Sessional School Manual.

While in the Edinburgh Sessional School Manual, page 231, we have the following in its favour:—'By making the pupil spell the lesson just *as he would write it*, he is less liable to fall in future life into the common error of substituting the word *their* for *there*, and others of similar kind.'

My own experience.

I myself can bear strong testimony to its practical superiority over all other systems, for I have had it in active operation for more than three years in the hundred schools which compose my district. When I consider what the spelling was and what it is now, there remains no doubt upon my mind, that it is one of the most successful methods that could be introduced.

Advantages arising from its use in my district.

The advantages which I have seen to result from it, and which, being founded upon so large and so lengthened an experience of its practical working, may be taken as the necessary results of the system itself, may be thus enumerated:—

(1.) Due atten-

(1.) Due attention is secured to all the small words, which are frequently the most irregular, and therefore the most difficult.

---

[1] Seventeenth Report of the Commissioners of National Education, Ireland.

[2] Min. of Council, 1846-7, vol. ii. p. 412.

tion to small words.

(2.) Child learns to distinguish between *way* and *weigh*, *the* and *they*, &c., in the best possible manner.

(2.) The child learns to make the necessary distinction between words similarly sounded, but differently spelled; and this he does in the best possible way—where the words actually occur. In the ordinary sentences for dictation taken from spelling-books the very arrangement of the words and construction of the sentences afford a clue frequently, by which the child is able to distinguish between *the* and *they*, *way* and *weigh*, &c., but when the pages of a book are taken without elaboration, or design, the results are much more satisfactory.

(3.) Child learns to depend more on *eye* than *ear*.

(3.) The child learns to depend more upon sight than upon ear.

(4.) He finds the true use of spelling.

(4.) He discovers that spelling is necessary to writing.

(5.) He is better able to write from dictation.

(5.) He acquires readiness in writing from dictation.

(6.) He spells more.

(6.) He spells more, and

(7.) With more ease.

(7.) He spells with greater ease and accuracy.

Objected that it consumes too much time.

The objection brought against it is that it consumes too much time. No saving of time, however, can excuse the adoption of methods so bad as those already pointed out. The saving of time at the expense of excellence is a very doubtful species of economy indeed. Happily, however, this objection is not true in fact, for the consumption of time upon the new and the old systems is much alike, for, although each pupil spells more in the former than in the latter, he learns to spell with so much more ease, and as no time is wasted in the looking for the words to give out, the lesson does not last longer in the one case than in the other.

Not true.

Why omitted at present in many schools.

It is probably from a belief in the force of this objection that spelling from dictation is omitted in many schools of England and Ireland, but I think it is chiefly omitted from ignorance of its vast advantages, and from a want of reflection upon the principles which ought to guide the teachers in a spelling-lesson. I trust, however, that what I have just said may be the means of introducing it more fully.

I hope it will be no longer so.

How to carry it out.

In carrying it out, it is necessary to attend to the following points:—

(1). Portions to be small.

(1.) *The portions given out are not to be too large.* From about four to six words will be found, in general, sufficient. Sometimes, however, the quantity may be judiciously increased, so as to enable the children to remember and reproduce complete sentences when occasion requires it. The children of the lowest class may get one of the small sentences entire, in their little books, though this quantity is relatively much larger than what I have recommended for more advanced classes—for, as they generally know these by heart, they will find scarcely any difficulty in spelling the words consecutively; and besides it is also a great advantage to these children to spell much.

The teacher himself must however be the judge of the quantity to be given to each, and he must of course adapt it to the proficiency of the children before him at the time.

(2.) To spell with vivacity.

(2.) *The pupils are to spell with vivacity.* This is not only necessary to give life to the lesson, to keep up attention, and economise time, but even to secure correctness. For, when the spelling is slow and listless, it is generally inaccurate, owing to the sluggish action of the mind.

(3.) With distinctness.

(3.) *And, above all, it is necessary to attend carefully to distinctness of utterance.* At present the pupils of many schools run the letters into each other, and slur over the final letters to such an extent, that it is impossible to tell what they say.

One way to secure distinctness is to see that *each* letter is articulated as it ought to be,—of this the master's ear will be the best guide,—and that all

How to secure distinctness.

(a.) Attention to each letter.

(b.) Spelling by syllables.

letters which require, from any cause, a special stress, receive it. Thus, in spelling the words *practise* and *advertise*, the letter *s* should be sounded more forcibly than the others, to distinguish the first word from *practice*, and to show that the second does not end in *ize*, as might be expected from its sound.

Another way is to make the pupils spell in syllables. I do not mean to recommend a renewal of the old and absurd system of *pronouncing* each syllable, and all the combinations of syllables in the words, or even to hint that it is an important part of the teacher's duty to get the children to tell, as many do, the *number* of syllables, but merely to say that, when spelling, they should make a very slight, yet a perceptible pause after each, as *teach—er*, *du—ty*.

Other advantages of this plan.

Will diminish errors.

This system will not only produce great distinctness, without any additional trouble, but it will be the means of diminishing the errors most materially, since these are most frequently made by the confusion arising from the length of the words, which this tends to prevent. Many children would represent accurately sounds requiring two, three, or even four letters in one syllable, who would certainly fail were several of those syllables united into one word. How many, for instance, would spell such a sentence as 'The ear will prove a good guide,' who would be sure to go astray if these seven monosyllables formed one huge word! In the one case the parts of what he has to spell are placed separately and distinctly before the child, and he, therefore, naturally spells each in its turn, and so lessens the difficulty of the whole; but when the parts are not so separated, as is the case with the syllables in a word, he, quite as naturally, grapples with the entire at once, and, as a consequence, he is certain to fail frequently.

He does not know that when the parts are undivided he can nevertheless make a division mentally himself, and that by doing so and treating each separately, he will spell with the same ease and accuracy in the one case as in the other. It is, therefore, the teacher's duty to show him that he may do this, and also to make him practise it until he can divide with readiness and correctness.

Division of syllables need not be perfectly accurate at first.

It is not necessary to insist upon a perfectly accurate division of the syllables at first, and, indeed, were it necessary, it would scarcely be possible, for in many words the exact syllables are a matter of considerable doubt. Let the ear guide the child for some time, and then, as he advances, teach him the rules of division to enable him to divide more correctly.

Mr. Kerr's opinion.

But, as Mr. Kerr says,[1] 'All possibility of error is not eliminated by division into syllables. Even with it I can conceive of such mistakes as *alotted*, *faithfull*, *begining*, *preceeding*, which, however, are common to both systems, and can only be corrected by experience; but mistakes like *preception*, *contunied*, *furitful*, which are by no means uncommon, and result simply from thoughtlessness, are scarcely possible if each syllable is taken by itself.' Such a system is exceedingly simple, and produces reflection, and this not only assists in determining what is sought, but impresses it on the mind.

It is simple, and produces *thought*.

Dr. Woodford.

Dr. Woodford, says[2] that, 'We may fairly attribute to neglect of this system, not only the errors which are very common in dividing words at the end of a line, but also much of our present inaccuracy in spelling.' The following are a few specimens of the wrong division to which he refers: *whic-h*, *na-mes*, *w-ould*, *appl-ied*, &c., the parts separated by the hyphen being written on different lines.

Valuable in reading.

This system also aids a child in overcoming a difficulty when reading. At present, when he comes

---

[1] Min. of Council, 1861–2, p. 227.
[2] Min. of Council, 1857, p. 659.

Mr. Riddell.

to a word which he does not know, he simply spells it letter by letter, and then looks up at the teacher for the answer, who, to save trouble, pronounces the word, and the child goes on.

This would not be the case had he been accustomed to look upon words as composed of so many syllables instead of so many letters.[1]

The Rev. J. Riddell says, 'I have found it the most invariable concomitant of good reading, ... they thus understand how sounds go to make up a compound word.'[2]

Tasks and spelling-books necessary in this system.

Though spelling can be acquired solely by reading, yet it is not possible for a teacher to dispense altogether with either *tasks* or *spelling-books*, as these concentrate the attention and hasten the process of learning, which, in a primary school, are essentially necessary. But the system of spelling from dictation renders the requisite tasks easier and more permanently useful.

But tasks are easier.

In what they ought to consist.

Every child should prepare *at home* two or three paragraphs of a reading-lesson, but he ought to do this by merely reading the words attentively over two or three times, or more frequently if found necessary; and he ought also to test himself by spelling them over, and writing them down.

The spelling-book must be of a peculiar construction.

The spelling-book which is allowable must be of peculiar construction, and it must be confined chiefly to the senior classes. It should contain all words liable, from whatever cause, to be misspelled, arranged either in columns, or in sentences for dictation—the best arrangement being in sentences—and it should be treated both as a task-book and as a book of reference for both teacher and children.

Advantages of it.

Such a book collects and arranges all words of irregular orthography, and thus affords the teacher an easy opportunity of including them in the dictation exercises, while the study of the book by the children is one means of making the eye familiar with their forms.

---

[1] See Education Commission, 1861, vol. ii. pp. 92 and 226.

[2] Min. of Council, 1856–7, p. 467.

Attention to what I have already advanced will enable the children to spell *orally* with correctness and ease. This is a great deal, but it is not enough; for the true test of spelling is in *writing*, and it has been fully established by the experience of all educationists, that children will make grave orthographical blunders in writing down what they would yet spell orally with accuracy. Mr. Middleton says,[1] 'Experience abundantly proves that the best oral instruction alone will not enable people to spell correctly on paper.'

Practice in writing also necessary.

Mr. Middleton.

It is strange that correctness in one case does not produce correctness in the other; there seems, however, to be no doubt but that some special practice with the pen is essentially necessary to secure perfect accuracy.

Pupils may spell *orally* and fail in *writing*.

No person, in fact, can possibly arrive at the desired result until he has had frequent occasion to write. Moreover, it must be remembered that orthography is required for writing and not for speaking, and therefore the fingers and not the lips must be educated, so as to produce the words correctly, without premeditation. The eye, under the influence of correct impressions, must direct the hand, just as in acquiring sounds the ear directs the tongue.[2]

Must write, as well as read, much.

Fingers must be educated as well as lips.

Hence the necessity of transcribing, or making a written copy of portions of a printed book. The eye is obliged to look carefully at the printed words, and thus cannot fail to notice effectually each letter, and its true position.

Value of *copying*.

---

[1] Min. of Council, 1861–2, p. 223.

[2] Marcel on Language.

In carrying this out, the passages selected ought to be remarkable for some excellence either in style or thought, or they should be sufficiently interesting to attract the attention forcibly. They would thus not only improve the orthography, but they would also give correct habits of writing, cultivate the taste, create a desire for literature, and supply useful ideas.

Must copy passages of interest, &c.

The pupils also should not glance merely at each word and then transcribe it, for thus the impression is too casual and transient to be valuable; they should commit at least five or six words to memory, and then, *without looking at the book*, transfer them to the paper. They should insert the pauses as they occur in the passage before them. And finally, when this is faithfully done, they should compare the whole with the original, and note all errors. This induces carefulness and, of course, produces ultimate correctness.

Must not merely *glance* at the words.

Attend to pauses,

and compare with original.

This exercise may be made available in the learning of home lessons, for, by causing the children to copy out carefully whatever they are to repeat in school, the trouble of committal will be greatly lessened, and a powerful aid will be extended to the acquirement of correct spelling.

May be made available in learning lessons at home, &c.

In spelling, as in most of the other subjects, my observations have been divided into two heads—those which refer to the *teaching* of the subject, and those designed chiefly to *test* this teaching. I have just treated of the one class, and now it remains for me to refer to the other.

Remarks divide themselves into those that refer to *teaching* spelling, and those designed to *test* the teaching.

All forms of written exercises may be used to *test* spelling, and by suitable corrections, &c., to *teach* it also. The chief of these are, original composition, writing from memory, and writing from dictation. As I refer to the two first in other places, I need here refer only to the last, especially as the system of correction, which I am about to describe, and by

All written exercises *test*.

Chief of these.

I shall now refer to the last only.

which these exercises *teach spelling*, is equally applicable to all.

Required for a long time, but not well taught.

Writing from dictation[1] has been required for a very long time from the advanced classes, but it has not been carefully or skilfully taught, and therefore it has not done much good. On the contrary indeed, owing to the system of teaching at present in force, it has been pernicious instead of being advantageous. It is conducted as if its value was in the actual *writing*, instead of being, from its very nature as a *test*, in the detection of errors and their correction.

Parts of a complete dictation exercise. (1) Passage. (2) Writing it. (3) Marking it. (4) Correcting it. (5) Testing the corrections.

A complete dictation exercise consists of the following parts:—

(1) Selecting and reading out the passage; (2) Writing it down; (3) Detecting the errors; (4) Correcting them; and (5) Taking such steps as will prove that this correction has been successful in removing the false impressions permanently from the minds of the children.

The last three most valuable but most neglected.

Of these the three last are the most valuable, as it is upon them almost exclusively it depends whether the exercise will do good or evil, yet they are the most neglected because the most troublesome.

I shall make a few remarks upon each of these parts in order.

(1.) The passage.

(1.) *The passage.* Although the primary object of a dictation exercise is to test and thereby teach spelling, it can be made subservient to other purposes, without interfering with its true design. It may, for instance, be made the means of impressing more firmly what has been already communicated to the

How it may be made to serve extra purposes.

---

[1] Mr. Morrell, Min. of Council, 1861–2, p. 186, says of it —'Writing from dictation is the only radical cure for bad spelling.' Mr. Wilkinson even says (1856–7, p. 677, and 1854–5, p. 728) that 'it ought to supersede oral spelling altogether,' and in this Mr. Kennedy agrees with him, (1849–50, p. 179). In such cases they speak of it more as a means of teaching than as a *test*, which it strictly is, and they make it include writing from a book, writing from memory, &c. &c.

class, or of imparting valuable information, by selecting the passages for dictation, in the first case, from a lesson already read and explained, and, in the next, from books of established reputation.

Should interest and improve.

The passages should be such as would interest and improve. In the junior classes, however, the master must be guided principally by the orthography of the words; as the pupils advance he may place before them passages worthy of remembrance. In his own studies he should mark, from time to time, for dictation exercises, passages either illustrative of peculiarities of spelling, or containing some valuable or interesting information suitable to the comprehension of his children.

Should mark passages in his own studies.

Explanation necessary before writing.

The passage should always be selected, for the least advanced classes, from lessons which they already know, and to the higher classes it should be read over and explained—the master giving a brief running commentary upon its general sense, before any child is permitted to write it down,—for, unless pupils fully understand what they are about to write, great confusion and loss of time result, together with their inseparable consequence—incorrectness.

When to be given.

The explanation might immediately precede the exercise in the higher classes, but with the lowest dictation children it might be done the day previously, so that an opportunity may be afforded them of attending to it over night.

How to prevent noise.

This exercise is frequently very noisy; the children are continually asking the master or each other questions, which ought on no account to be permitted. To avoid the necessity which leads to this, the most inexpert should be placed nearest the master, so that he may from time to time glance at their exercises, and tell them what they need quietly and without interrupting the general business. If, however, they fall too far behind, they should be instructed to go on with the rest, leaving a blank space to be filled up when the sentence is being read over the second time to test its accuracy. The sentences must also be dictated in small portions at a time, just sufficient to be easily remembered, and in a firm tone of voice, not in a loud and noisy tone, but in one that is clear and distinct, and directed to the farthest desk.

The quantity should be the same for each day.

Pupils should write the same amount each day. I have generally recommended that as much should be witten as will fill about a page of a small book, containing fifteen closely-ruled lines. (The Commissioners of National Education supply these to the schools in Ireland neatly bound in red paper covers.) Ordinary children write at the rate of about one line per minute, and thus the writing of the exercise, allowing for distributing the paper, &c., will occupy about twenty minutes, which I find quite sufficient.

Punctuation an important part.

Punctuation is an important part of this, as of the *copying* exercise, but I regret to say that it is very generally neglected.[1] Very few of the advanced children, or even of the pupil teachers, can punctuate correctly, and this from inattention to the subject during the written exercises of their school course.

Those who do attempt it generally ignore the full stop, the colon, and semicolon, making the comma reign supreme.[2]

The use of these marks ought to have been partially acquired during the preparatory transcribing exercise, but to the junior classes the stops, the *quotation marks*, the capital letters, &c., may be told as they occur. The senior classes should be accustomed to place the capitals correctly, and to punctuate for themselves,—general hints and rules, of course, to enable them to do so, being given to them from time to time.

---

[1] Min. of Council, 1849, vol. ii. p. 179 (Mr. Kennedy). Min. of Council, 1854–5, p. 728, and 1856–7, p. 677 (Mr. Wilkinson).

[2] Min of Council, 1861-2, p. 227.

(2.) The writing. Must be neat, &c.

(2.) *The writing.* This must be performed very carefully, and neatly, and with the same attention to progress in penmanship as if the exercise were specially designed for that purpose.

Objection against dictation that it produces bad writing.

One of the objections most frequently urged against a dictation exercise is, that it tends to injure the style of writing. Such an objection has obtained nearly all the weight it possesses from the many instances met with in which the writing is extremely bad, and carelessly executed, but as an argument against a really well-conducted dictation exercise it is quite invalid.

Answered.

This will easily appear by considering what it is that does injure the handwriting. It may be injured by scribbling, by rapid and hasty execution, by slovenly and untidy habits, by using improper pens, by holding the pens badly, by sitting improperly, &c. but not one of all these causes forms a necessary part of the dictation exercise. If the pupils write carelessly, scribble, blot their books, use bad pens, &c., the blame rests with the master, and not with the exercise.

Mr. Jenkins' opinion.

Mr. Jenkins supports my views upon this point. He says, 'The objection usually urged to it is . . . . that its adoption would tend to habits of bad writing. But there is no reason to suppose that a proper system of inspection would not secure attention to writing being equally well executed in this case as in others.'

Another cause for the objection is in the comparison of the *writing* with the *dictation* books.

Another cause for the prevalence of this objection is that the writing in the dictation exercises, *even when the utmost pains are taken by the master to make it good*, appears always worse than what is contained in the ordinary copybooks. The fact, however, is, that the dictation exercise, in this case, merely lays bare the defects which it is accused of creating. The error committed is in estimating the true proficiency of the penmanship from the ordinary papers, but these form an unfair test, as children will, naturally, write better with a model line before them which they can imitate, than when they have no such help. It is similar to the error of judging of swimming by witnessing several performances by the aid of corks and floats. When the corks are thrown away, the results are generally less satisfactory, but we do not on that account accuse the corks of creating the difference; nay, on the contrary, we see that it is necessary to take them away, in order to form just conclusions.

Dictation **only exposes the errors.**

The dictation exercise does nothing but take away the corks. It exposes the error which those make who take the copybooks as the true standard of the children's handwriting, and should therefore, instead of being blamed for producing defects, be regarded favourably for exposing them.

Will actually improve the writing, by giving it boldness, &c., which is the true form of good penmanship.

My impression is, that though this exercise will not certainly *teach* writing, it will not, unless carelessly conducted, injure it; and when the hand is formed, it will even give it finish and boldness. What is called 'good penmanship' is merely 'showy penmanship,' every line according to rule like an engraver's piece, and requiring for its execution a large amount of time; but what ought to be aimed at in our schools is a plain, bold, free, legible hand, and this the dictation, among other exercises, tends to produce.

Teacher must see that the pupils have good pens, &c.,

It is the duty of the teacher who conducts this exercise to see that the children are provided with proper pens and holders, that they hold them correctly, and bear their bodies properly on the seats, and that while writing they avoid haste on the one hand, and slowness on the other. A glance of the eye is sufficient for all this. The other errors, such as blotting, scribbling, erasures, &c., can be noted during the examination of the copybooks, and

and he must attend to blotting, scribbling, &c., when

specially dealt with afterwards. (I have mentioned erasures as a fault, by that I mean the habit of rubbing out words, instead of simply putting the pen through them, and writing the proper forms above.)

Inspecting the books.

Scribbling should be prevented, not only because it injures the writing, but because it tends to defeat the very object of the exercise itself. For as spelling depends, as has been already shown, almost wholly upon the eye, the worst results must be anticipated when the pictures presented are indistinct and irregular. When, for instance, the *e* and the *i*, the *u* and the *n*, the *l* and the *b*, &c., cannot be clearly distinguished, confusion takes place, and if continued, the scribbler will become not only a bad writer but a bad speller also.

Scribbling produces not only bad writing but bad spelling.

It may be remarked from what I have already written, that I refer to dictation on paper instead of on slates, and it may be fairly concluded that it is on paper and not on slates that I think this exercise ought to be conducted. This is quite true. Although in nearly all schools in England and Ireland slates are used, I have myself in this district abolished them entirely, and this I did from the firm conviction I entertain that *it is impossible to conduct the exercise satisfactorily upon them.*

Dictation ought to be on paper.

***Impossible* to teach it on slates.**

This is a very sweeping censure upon the general practice, but a little reflection will prove that it is correct.

When slates are used, the dictation lesson, such as it is, is always begun and ended before the class leaves. But to complete a true and thoroughly useful exercise, one that will do good instead of harm, would require more time than could possibly be spared from the other business of the school course. It would require, at the very least, from about one hour and three-fourths to two hours, as the following calculation will show:—

Proof.

Explanation of sentence previous to reading it	5	minutes
Reading the sentence, and writing it down	20	„
Detection of errors (master)	30 to 40	„
Correcting these (children)	20	„
Testing the value of correction	15 to 20	„
Re-correcting any again committed	10 to 15	„

All these are so indispensable, as will appear hereafter, that without them the exercise is an evil; and the times are not too long, being calculated from the actual working of a class of fifteen boys, which I myself conducted in an average national school of this district.

Faults met with when slates are used.

Every one knows that so much time is never given to a dictation lesson when slates are used, and even if it were, to keep a class engaged so long at one lesson would be a gross abuse of organization, and a gross injustice to the children. The only conclusion, therefore, to which we can come is that, when slates are used, the exercise is an injury, and that some or all of the following defects are met with:—(1) Too little is given out; (2) too short a time is allowed for writing, and, hence, scribbling and general injury to the style of penmanship; (3) the marking must be cursory and incomplete; (4) the pupils do not correct the errors afterwards sufficiently to remove them fully from their minds; (5) oral and written tests are not applied to try the efficacy of this correction; (nor indeed could they be applied properly, as the correction would be too recent to make the results fully reliable); and (6) the advanced classes only are taught.

Paper free from these.

Slates fail from their obliging the teacher to go through with every part of the exercise before he disengages his class for other work; but when paper is used, no such obligation is incurred. In that case the children are free, when they have written the passage, to turn their attention to other duties, for the remaining parts of the exercise—the detection of the errors—their correction—the after tests—and the re-correction—can all be postponed not only without inconvenience (as the papers are easily preserved, and the writing in them is not likely to be defaced), but with advantage.

The use of paper, in fact, enables the teacher to conduct each part separately, and thus it allows him to set apart ample time for the full and satisfactory performance of them all. Its advantages may therefore be thus summed up:—

It admits of sufficient being written, of careful penmanship, of the marking and correcting of every error, and at the best possible times, of all classes being taught, and, as the copies may be preserved for years, it affords, to the master, a faithful record of the children's advancement, and, to the inspector, ample means of testing how frequently the exercise is conducted in his absence, and how faithfully and carefully. It also stimulates the children to avoid errors, for when committed they are indelibly registered against them, and may be inspected by their parents, their clergymen, and their friends.

Opinions recommendatory of paper.

The following opinions are given in support of my views about the use of paper:—

In Ireland.

Butler.

Mr. Butler.[1]—'After the first few weeks, this exercise should be conducted on paper.'

M'Creedy.

Mr. M'Creedy.[2]—'It should be conducted principally on paper.'

Sheridan.

Mr. Sheridan,[2] after strongly condemning the present system, recommends the use of paper, and sketches out the plan to be adopted. He adds that, 'according to the other method, as soon as the exercise is blotted from the slate, the errors committed escape from the memory. *Here* they are on record during the time the books are retained.'

---

[1] Reports of the National Board of Education, Ireland.

[2] Reports of the Commissioners of National Education, Ireland.

In England.

Moseley.

Mr. Moseley,[1] in finding fault with the schools, says: 'The children have not been accustomed to copy in writing sentences in print, or to write from dictation on paper.'

Blandford.

Mr. Blandford,[2] again:—'One certain way to effect improvement in spelling, is to practise the children in writing from dictation on paper.'

Stokes.

Mr. Stokes.[3]—'I am of opinion that writing from dictation on paper is neither so general nor so well done as I hope to find it in future years.'

Scoltock.

Mr. Scoltock.[4]—'In few schools do I meet with dictation on paper. This, I think, is to be lamented, for as soon as children can write fairly from dictation they ought to have copybooks given to them, and pieces chosen for dictation which would form a subject of interest at home. In addition to this, the habit of rubbing out on the slate and correcting is bad; this, by the use of pen and ink, might be avoided.'

---

[1] Min. of Council, 1845-6, vol. i. p. 232.

[2] Min. of Council, 1856-7, p. 373. He adds, that 'Half a sheet of foolscap is sufficient for each lesson; the other side might be advantageously used for the working of sums. I believe there is no exercise better calculated to improve a class in spelling, and to promote accuracy in arithmetic, than this. In writing from dictation, or in working sums on slates, a child may be careless and inattentive from the very facility with which mistakes can be rectified, by rubbing out the mis-spelt word or the incorrect figure; but this cannot be done on paper, and the effect upon the child is, to make him think and to spell the word mentally before it is written upon the paper; anyone who has given a lesson in dictation to a class, and made them perform the exercise on paper, must have observed the indication of this reflection in their countenances whilst they are writing. It may be said, on the other hand, that children who can write very fairly from dictation, and work their sums with tolerable accuracy on slates, will make all kinds of blunders when required to do the same on paper, but these mistakes arise from the novelty of the exercise, and the want of sufficient practice, and is a strong argument in favour of this paper work; skill in arithmetic, and the power of spelling correctly, will be tested in after-life, not on slates, but on paper, by the quickness and accuracy with which the pen can be used in writing letters, in making out bills, and posting accounts in the ledger.'

[3] Min. of Council, 1856-7, p. 610.

[4] Min. of Council, 1860-1, p. 170.

Results in this district.

The very happiest results have attended the change in this district. Where the number of errors ranged formerly from five to thirty, the average now is never higher than four; and the teachers who at first murmured—for men will be found to murmur at anything—now confess the benefits of the new system and the evils of the old.

A copybook must be used for itself.

Separate books must be used for this and the writing exercise, as one will interfere with the other, if on the same paper. Books such as those already described, page 117, are the best, as the close ruling does not require so large a consumption of paper, and as one leaf is exactly sufficient for a single exercise (fifteen lines).

Kind of.

Must be kept clean.

But, whatever is the kind used, it is essentially necessary that they are kept scrupulously clean, free from all blotting, dust, tearing, crumpling, &c. Cleanliness and neatness are essential elements of success in all manual operations, for, until persons take a pride in doing a thing neatly, they will not take a pride in doing it well. Besides, when neatness is insisted upon, a habit is formed which will always be of practical value.

Put between two boards with strap and buckle, &c.

The copybooks in this district are put between two thin boards, and the bundle thus formed is bound firmly together by a strap with a buckle. By this simple and inexpensive contrivance they are much less liable to be bruised, or to be tossed, exposed to dust, &c., while the teacher can procure the books of a whole class and give them out with ease.

(3.) Marking the exercise.

(3.) *The marking of each exercise.* This is of the utmost importance, for the chief value of the dictation exercise may be said to consist in its pointing

A partial marking very injurious.

out the words which each child is likely to misspell. A partial examination is, therefore, injurious, for, unless all are pointed out, the means adopted to make the results satisfactory will be unsuccessful.

Different methods and objections to them.

1. Teacher spells and children correct. Recommended by Currie, Ross, Marshall, &c. I have always found it to fail.

2. Correct each other's slates. This unsuccessful also, and creates distrust.

3. Corrects one slate and reads the errors for all the class. A mere makeshift.

4. Each boy spells a word in order. This also a makeshift.

5. Corrects during the

Several methods have been proposed which are said to possess the two great advantages,—of being complete and economical of time. 1. The teacher spells every word correctly letter by letter, causing the children to mark the errors as they find them. This system has the greatest sanction of any. (See Currie, p. 370; Ross, pp. 113 and 114; Mr. Marshall, Min. of Council, 1859, p. 413; and Mr. Bellairs, 1848–9, p. 120.) But in practice, I have always found it to fail. That it does fail can be proved by any one who will take the trouble of going over the exercises after their being noted by the children. He will find, unless I am much mistaken, several errors unmarked. Such a system seems to require not only too much honesty and firmness from children, but too much attention. One half of the unmarked errors are omitted from thoughtlessness, though some few are passed over wilfully. 2. He causes them to change slates and correct each other's exercises. This, also, is unsuccessful, and depraves the mind by the distrust which it implies. 3. He takes the slate in which he thinks there are most errors, and marks it carefully, and then spells the words so marked for the class, directing all to note the errors on their own slates, if they occur. This is palpably but a makeshift, as he may not be able to select the worst exercise; and even if he were, other boys may commit mistakes not found in it. 4. He makes every boy spell a word alternately, as it is written, and he tells each when wrong. This also is but a makeshift, as the word which falls to each may be quite correct, though the words before and after it were quite wrong. 5. While reading out the exercise, the teacher goes through the desks and marks the errors as he sees them. This plan is ineffectual, wastes time, and affords abundant temptations to dishonesty.

reading of the exercise. Ineffectual, and promotes dishonesty.

There are several other plans, but as they are inferior even to these, it is unnecessary to give them. They fail from being partial, or from requiring too much honesty and thoughtfulness in action than it is possible to get from children.

Others also fail.

There is no system of marking, in my opinion, but the one; that is, *to read every exercise carefully and to score each error as it occurs.* Every word must be carefully gone over, and all mistakes marked, whether of spelling, of capital letters, of omissions, of incorrect divisions at the end of lines, &c.; and the number should be summed up at the top of each page, the errors of spelling, however, being put by themselves, while all the others may be collected into one sum. I generally recommend that the spelling errors should form the numerator of a fraction of which the sum of *all* the other kinds forms the denominator.

Teacher must read every word and mark every error.

Errors to be totted up,

It is necessary, however, for reasons which will be given farther on (see p. 129), not only to mark the orthographical mistakes, *but to write the true word above each.* Red ink should be used, but only with a quill pen, as a steel pen blackens it. It is neater and more easily visible than black ink.

and true form to be written above each.

With slates such a minute examination would be impossible, as the children would be idling during the time it was going on; but when paper is used they need not idle, as this part of the exercise can be deferred, as has been already explained, to any convenient opportunity before or after school, or during play-time. It may be done by the master himself, or by the assistant, or by both together, or, if they be steady, and also good spellers, by the aid of the monitors. Except, however, the number of exercises is very large, it is much better to avoid the use of monitors, for it is rare to find them properly qualified for this duty; and even when they are, the

This impossible with slates.

To be done before or after school.

By whom.

Monitors to be used only upon great necessity.

How to use them.

compulsory discharge of an irksome task, which brings with it no equivalent return, is almost certain to generate unfaithfulness, even in the best of them. If, however, it is absolutely necessary to employ them, a certain number of exercises should be given to each, so that whatever deficiencies appear may be easily traced to the proper person.

Principal must hold himself responsible.

But, no matter by whom it is done, the principal teacher should satisfy himself that it is done thoroughly, and, as Mr. M'Leod says ('English Journal of Education'), 'such a minute investigation will amply repay him for all his labour.'

Will not take long; one to two minutes sufficient for each.

It will not take a long time. A skilful person will mark an exercise in from one to two minutes, according to the quality of the writing, and the number of mistakes met with.

(4.) Correction. This *teaches*, the others *test* only.

(4.) *The correction.* The three steps previous to this refer to dictation simply as a *test* of efficiency in spelling. They do not *teach* spelling, but, on the contrary, they rather tend to make mistakes permanent, for whatever aid writing affords to the memory, it is obvious that its tendency is to perpetuate errors as well as accuracies. It is exactly, however, at the third step that the majority of teachers stop. They give out the sentence, get it written down, occasionally mark it, but, as the time of the lesson is for the most part then up, they rarely pass beyond this.

The others do harm if not supplemented by this. Yet this is generally omitted.

Opinions of M'Creedy, Butler,

As Mr. M'Creedy says, 'This is an abuse almost as serious as the entire omission of the lesson itself.' Mr. Butler says, 'Correction, which is the most essential part, has been least attended to.'

and other inspectors in Ireland. Of Laurie,

Mr. Keenan, Mr. Hunter, Mr. Sheridan, Dr. Newell, &c., all bear witness to the same thing; while, of the English Inspectors, Mr. Laurie says, 'This exercise is one of little value without strict attention to neatness of the writing, and a systematic and careful revision.'

and of Alderson, in *England.*

Mr. Alderson says, 'The bad spelling so general is caused by the careless revision during and after the exercise. Mistakes are made, and from not being pointed out and corrected, they fix themselves on the memory, and are with great difficulty eradicated,' &c. &c.

The entire value of the exercise as a means of *teaching* spelling consists in the permanent removal from the minds of the children of all the errors they commit.

How to correct.

To secure this we must appeal to the eye more than to the ear, though we ought to appeal to both. We should get the child to write the words which he misspells so often, correctly, that he will become perfectly familiar with their true form. The teacher, after marking the exercise, should bring forward the number of errors from page to page, until they amount to the number of lines in each (generally about fifteen). *Three* on one sheet, and *four* on another, would appear at the top: thus $(\frac{3}{0})$ on the first, and $(\frac{3+4}{0}=\frac{7}{0})$ on the second; the '0' signifying that there were no errors but those of spelling. When the errors amount to this number the child should transfer the words, but in a corrected form, to a new sheet, *writing each word at the beginning of a line.* This being done, he should fill up each line with its own word, writing it as often as the line will hold it.

Suppose that the errors committed were *monsterous*, *the fled*, *wilfull*, *begar*, &c., and that the page selected for the correction was that within the black lines below, the whole would appear as follows:—

monstrous,	monstrous,	monstrous,	monstrous,	monstrous
they fled,	they fled,	they fled,	they fled,	they fled
wilful,	wilful,	wilful,	wilful,	wilful
beggar,	beggar,	beggar	beggar,	beggar
&c.	&c.	&c.		

The word *fled* is put in, although not wrong in the exercise, to show by what means the mistake occurred in the word 'they.'

By this means the true form is almost certain to be so thoroughly impressed upon the eye and brain, that a mistake in these words is not likely to occur again.

Corrections at end.

For the sake of reference, the corrections should all be recorded at the end of the book, writing on the last leaf first, and going back to meet the ordinary exercises. They will thus be all together.

With some boys the mistakes may not amount to fifteen in many weeks. In such cases they may be corrected at stated intervals, determined by the master himself.

When to take place.

All corrections should take place *during the time set apart for the ordinary dictation exercise*, and, as all boys will not have fifteen errors on the same day, it will follow that some will be taking down the new sentence at the very time others are correcting the old ones. Hence the value of bringing forward the errors from page to page (as I before recommended), and of writing the true form above each when marking the books, for every child, from such an arrangement, will be able to decide for himself when he is *to correct*, and when to attend to the new passage, and he can also make out the proper spelling of the words to be transferred, without special reference to the master.

A special day not to be set apart.

It is always a bad thing to set apart, as some do, a fixed day for the purposes of correction, as many may be absent on that day, and thus lose the benefit of correction altogether.

Cause of all [illegible]valent [illegible] to be [illegible]stigated.

Whenever there is any prevalent error pains should be taken to find its cause. For this purpose the true form may be written beside the wrong one on a *black board*, so that, by comparison, what led to the fault may be detected and avoided.

(5.) Tests after correction.

(5.) It remains for us, now, only to discuss the last step of all, the *tests* which are necessary in order to show the efficacy of the preceding corrections.

Why required.

The previous step is supposed to be sufficient to remove all errors permanently, and in the vast majority of cases it will do so, but, from the inattention and carelessness of some, it may in reality fail.

Described.

Hence the necessity of this last course, which consists in giving out the words *from the pages of correction at the end of the books*, to be spelled orally, and in writing. They may be given out individually, or grouped into sentences of the master's own composition, three or four being put, if possible, into each. In either case each boy's book may be taken alternately.

Oral test.

The oral test ought to be applied occasionally, instead of the usual exercise in spelling from dictation, which accompanies each reading lesson, while the written test may take place instead of a new dictation exercise from a book. The words should be written in the body of the book—not at the end—and all errors should be treated exactly as recommended in step No. 4.

Written test.

Lists to be kept of errors.

The master may keep lists of these errors, or he may refer to the copybooks themselves. The lists, however, though more troublesome, are more satisfactory.

Errors of capitals, &c.

With regard to the other errors generally met with, as in capital letters, division of words, omissions, &c., a few hints as to the best means of remedying them will be all that is necessary, provided only that the teacher is sufficiently strict in pointing them out.

Concluding suggestions.

The following additional suggestions will be found advantageous:—

(1.) Copying.

(1.) Pupils must be prohibited from looking on each other's papers, because, when they do this, it is impossible to discover what are the exact errors of any. If they were required to sit behind each other in straight lines, and as far asunder as desk accommodation would admit of, there would be less danger of prompting, &c.; but the best possible check is the cultivation of such an upright and healthy spirit among the children themselves as would make them regard the act as mean and dishonest, and not only a breach of obedience but of integrity. By this means the exercise may be made a very important instrument of moral discipline.

(2.) Collecting the books.

(2.) Some system of collecting the books expeditiously should be adopted. That which I have found to answer best consists in making the children pass them over in a small bundle to the end of each desk. The monitor then collects these small bundles into one ready for inspection at the time set apart for that purpose.

(3.) How to act in small schools.

(3.) In many country schools there is not room enough to teach the classes upon the floor, and at the same time to conduct the dictation exercise quietly and reliably; it is judicious, in such cases, to frame the time table so as to admit of having some of the junior children at play while this exercise is going on.

(4.) To teach all the classes.

(4.) When this exercise is confined to the senior classes the removal of a child into them from the others occasions a good deal of inconvenience. Such a child, from having no practice in his former class, not only makes bad spelling, but he writes so slowly and incorrectly that he acts as a drag for many weeks. The only remedy is to accustom each class to write the sentences from dictation of which they are capable, making them, of course, progressively difficult. In the very lowest classes we might begin with *words*, then as they advance they may get easy sentences, then more difficult, until at last any ordinary sentence may be taken.

Hints from 'Journal of Education.'

The following hints, from the 'Journal of Education,' may be found useful in giving out a dictation exercise to a junior class:—'The teacher commences by giving out the letters of the first word letter by letter, slowly and distinctly, the pupils writing these letters fairly and carefully. When every letter of a word is given out, the word should be pronounced by the teacher, all of the children repeating it audibly, but quietly, after him. The next word is treated in the same way, and so on until a sentence is given out. The teacher then calls upon his class to spell and pronounce each word as it occurs, each boy taking only one word. They are then directed to rub all out. When this is done, the teacher proceeds to dictate the sentence over again, word by word, very deliberately and distinctly, but without spelling them as at first.'

Junior ought to be occupied chiefly in copying.

The junior classes, however, should be chiefly occupied in *copying*; it is only occasionally, as on one day in the week or fortnight, that they should be called upon to undergo the severe test of a dictation exercise. (I would not, indeed, recommend that this should form a portion of every day's duty, even in the most advanced classes. About twenty minutes on three or, at most, four days of each week, will be found quite sufficient for all practical purposes, if the teaching be faithful and correct.)

Time to be devoted to dictation in each class.

Mr. Currie against teaching it to junior classes.

Mr. Currie is against the early introduction of the dictation exercise. He says:[1] 'The class to which it is given must be sufficiently advanced in writing to warrant the hope of an adequate return for the time devoted to the exercise. A class which is struggling with the mechanical difficulties of writing cannot profitably engage in it as commonly practised.' But the great majority of the Inspectors are against this view. They say that 'it ought to be given to all;' that, 'dictation should be joined with reading from the very first;' that, when so joined, 'it possesses many advantages.'[2]

Opinions in favour of it

---

[1] In his valuable work on Common School Education.

[2] Min. of Council, 1848-9, vol. i. p. 120; 1859-60, pp. 175 and 272; 1861-2, p. 148; and the Reports of the Head Inspectors in Ireland.

Mr. Gill's graduated exercises for each class.

In conclusion, I will give here the following extract from Gill's work on 'School Management,' to show what he considers a course of lessons in dictation graduated to suit each class:—

A Course of Lessons.

I. *Lower Classes.*

1. Simple sentences containing words of like endings, as—John will bend the wire and mend the fire.

2. Simple sentences containing easy words, especially the names of common objects, as—Tea is cool.

3. Pieces of simple poetry.

II. *Middle Classes.*

1. Sentences containing words of similar pronunciation but different in spelling and meaning, as—The wind blew the blue-bell away.

2. Sentences containing words with silent letters, and double vowels, or consonants, as—The dumb boy ate a piece of cabbage.

3. Words spelt alike, but different in pronunciation and meaning, as—His conduct will conduct him to ruin.

4. Words spelt and pronounced alike, but different in meaning, as—It was meet she should meet her cousin.

5. Selections of poetry.

III. *Higher Classes.*

1. Primitives and derivatives.

2. Columns of anomalous words.

3. Peculiar difficulties, as—Eight heifers and ewe sheep were chewing the cud beneath the tough boughs of an ancient yew-tree in that beautiful field.

4. Selections of poetry.

CHAPTER IV.

WRITING.

THIS subject ranks next to reading in its influence upon the interests of the child, but in its importance to the teacher it excels all others. It is the most tell-tale of all exercises. In any other branch some inattention or defect may pass unnoticed, especially when the parents are illiterate; but in this the master's neglect is so truly and completely reflected in the failings of the child, his very habits of order and neatness and his power of creating similar habits in others are so fully exhibited, and require so slight a glance to detect, that there is no escape from condemnation if deserved. The copybooks are a mirror in which every parent may see for himself the character of the master and of his school.

Most important subject to the teacher.

From being the most tell-tale of all exercises.

There are many who would be quite unable, and the vast majority would find it difficult, to judge correctly of the master's merits by his skill in teaching reading or arithmetic, but all can say with ease and certainty whether the penmanship is good and careful; and hence it is that it forms the popular test by which to try the value of a school.

Writing is the popular test for a school.

It was to their skill in teaching writing that the old race of teachers owed much, if not all, of the favour with which they were regarded; and even in the present day that man is, as a rule, the most popular who turns out the neatest and best copybooks.

Old teachers popular through attention to writing.

Mr. Fraser's description of a popular school caused by good penmanship.

Mr. Fraser, assistant-commissioner appointed to inquire into the working of primary schools in England, thus describes a private school which he met with. He says:[1] 'There were few labourers' children, but mostly those of small tradesmen and farmers, at 6*d*. per week. They came from great distances. Of the 80 or 90 present at my visit, one boy had come 5½ miles; 14 boys and 7 girls had come 3 miles; 24 boys and 5 girls had come 2 miles. The school is intensely popular in the neighbourhood.' And he adds, '*The secret of success is, that he teaches writing remarkably well.*'

The experience of most inspectors could, I am certain, supply many similar instances, where the only claim to popularity, and to successful competition with other schools, was skill in teaching writing well.

Writing, therefore, should be the most successful of all exercises.

As considerations of this kind are calculated to force attention from those who would be unmoved by any higher motives than their own interests, and as the great advantages which the exercise itself is acknowledged to confer upon the scholars are sufficient of themselves to secure for it the careful supervision of every conscientious teacher, there ought to be no part of the school course in which excellence might be so universally looked for as writing, especially as, from its thoroughly mechanical nature, even the most unintellectual can practise it with almost a certainty of success.

It is not so, however.

Yet, whether it is that the systems in force are faulty in principle, or that they are carelessly carried out notwithstanding the many reasons for the contrary, it is certain that this subject is not at all so successful in primary schools as one would naturally be led to expect. In fact, the character of the penmanship has met, from time to time, with the censure of nearly all who are in any way connected with education, and has even called forth a condemnatory letter from a prime minister of England.[1]

---

[1] Education Commission, vol. i. p. 91.

Caused by errors of systems, &c.

My idea is, that the writing is unsuccessful, both because the *systems* are bad, and because they are also *badly carried out.*

When teachers are highly educated, and when the curriculum of their schools is so extensive, as is the case generally, that one subject clashes with another, it will always be found that those parts of each day's duty which are the most mechanical and elementary will suffer, even although such a course is known to be contrary to the true interests of the teacher and the children.

The leaning towards those portions of the course which are most intellectual, and the consequent distaste for the drudgery of teaching the others, are frequently too much for all, except for those whose faithfulness and good sense no considerations of personal inclination can overcome.

Defects of present systems.

The systems are also inferior. They either treat writing too much as a science, as Mulhauser's did, or else, by the use of engraved copy slips, they require from the teacher little more than his supervision, and do not *force* upon him that constant personal acquaintance with the defects of every child by which alone he can be certain of success. In fact, by making this exercise to a large extent self-working, these slips afford that very temptation to neglect which a wise foresight would most certainly not only not offer, but would strongly withhold from teachers with such tastes as the majority of this body are known to possess, and therefore it may be said that they are, to a great extent, the cause of the present failure.

---

[1] The following is a copy of the letter referred to:—

'Whitehall, 24th May, 1854.

'Sir,—I am directed by Viscount Palmerston to request that you will submit to the Committee of Council on Education, for their consideration, that one great fault in the system of instruction in the schools of the country lies in the want of proper teaching in the art of writing. The great bulk of the lower and middle orders write hands too small and indistinct, and do not form their letters; or they sometimes form them by alternate broad and fine strokes, which make the words difficult to read. The handwriting which was practised in the early part and middle of the last century was far better than that now in common use. And Lord Palmerston would suggest that it would be very desirable that the attention of schoolmasters should be directed to this subject, and that their pupils should be taught rather to imitate broad printing than fine copper-plate engraving.

'I am, &c.,

'(Signed) H. Waddington.

'The Secretary of the Committee of Council on Education.'

The system which I recommend is free from most of the defects at present met with; and, though it will not of itself create attention, it will certainly not tempt teachers to neglect of it.

Nature of what I recommend, conveyed in rules, &c.

Its nature will be perceived from the following rules, and from the remarks explanatory of the principles upon which they are founded:—

Rule 1. PAPER TO BE USED INSTEAD OF SLATES.

RULE 1.—*Except with the alphabet class, and the draft just in advance of it, use paper instead of slates.*

Balance of opinion in favour of paper.

Opinions are variously divided as to whether children in their earlier efforts at writing should use slates or paper, but I am inclined to think that the balance is in favour of the latter, though, unfortunately, the practice would lead us to believe that it was not so.

As paper is the great medium of communication in use at the present day, excellence in writing upon it, and not upon slates, is the end to be attained. The question, therefore, is, will those who begin by writing on slates make as much progress in the desired direction as if they began upon the material itself which they will ever afterwards be called upon to use?

This is similar to the question, Whether is it better to teach a girl in the beginning to sew on paper or on cloth? Neither would, in my opinion, ever have arisen, were it not that the cost of material becomes in large schools a matter of considerable importance, and very often determines the practice to be pursued. In fact, these are questions of economy, and not of merit. But as the long-continued use of slates may have led many to think that they were primarily adopted for different and more favourable reasons, it is probably correct to state here briefly why I recommend paper to be used in their place.

This is a mere question of economy.

Arguments.

The difficulties which a child encounters in his first attempts to write on paper consist, so far as I can estimate them, (1) in the resistance of the paper to the free motion of the pen; (2) in the management of the pen itself, owing to its peculiar make and flexibility; and (3) in regulating the flow of the ink; and these cannot be overcome by any practice upon slates, no matter how extensive.

It is said that pupils acquire a freedom of hand, and learn the forms of the letters, by the use of slates. This may be true; but, as the freedom thus acquired cannot be transferred to paper, upon which alone it is of any practical value, and as the shapes of the letters can be as easily and correctly learned upon one material as on the other, it is but fair to conclude that the use of paper from the very earliest efforts is the wisest course to pursue. The expense will be a little more, but there will be a profitable and judicious economy in the end.

Mr. Sheridan in favour of paper.

Mr. Sheridan says,[1] that ‘under any circumstances, indeed, I attach but little importance to writing upon slates, as a means of teaching writing. When a child is old enough to be capable of holding a pencil properly (and he should not be required to use one until he is), he is also quite capable of holding a pen properly; and it is that which should be put into his hand.'

---

[1] Reports of the Commissioners of National Education, Ireland.

Mr. Keenan.

Mr. Keenan condemns slates altogether. He says,[1] 'It is possible that writing upon a slate may spoil the hand for the finer lines to be drawn upon paper. Indeed, so generally does this notion prevail in Holland, that the use of slates is, in many cases, quite forbidden; and when a Dutch schoolmaster is asked if the total supersedure of the slate is not too costly a plan, he usually replies that it is not.' He adds that, 'the use of paper leads to a salutary practice of economy, to habits of carefulness, and deliberativeness, and to the important idea of rendering the results of all human labour—great or little—fit for the test and worthy of the quality of durability.'

Practice in Holland.

Mr. Fussell.

Mr. Fussell says,[2] 'The practice of writing upon paper is gradually, though slowly, extending itself, and, if sufficient care be taken in superintending this exercise, its substitution for slate-writing will, I have no doubt, be a point gained. I believe it is adopted in the elementary schools of France much more extensively than with us, and, from all the information that I have received on the subject, the plan is successful.'

Practice in France.

Mr. Kennedy.

Mr. Kennedy says,[3] 'One point in which improvement is needed is that more should write on paper.'

Mr. Wood.

Mr. Wood says[4] also, that 'we do not recommend slate-writing as equally good, for the pupil, with that which is taught by means of pen and ink.'

Practice in my own district for a few years.

In this district paper has been almost exclusively used for the last few years, and with very favourable results, amongst which, and by no means the least important, is the means thus afforded of bringing the very earliest attempts of the young children under

---

[1] Reports of the Commissioners of National Education, Ireland.

[2] Min. of Council, 1860-1, p. 19. [3] Ibid. 1861-2, p. 75.

[4] Wood's Sessional School.

One advantage specified.

the immediate notice of their parents, and, as a consequence, interesting them in their success. When slates were used, the parents could neither tell how much attention was paid to these children, nor could they judge of the extent which they had profited by the instructions they had received, but paper supplied the exact test for both which they required.

Slates not wholly dispensed with.

The use of slates has not been wholly dispensed with, though, as a means of learning to write, it may be said that it has: I recommend that the alphabet, and next section of the lowest class, should use slates. It is not of great importance, indeed, to teach these to write at all, but, as they must be kept occupied at some desk occupation, and as a suitable change from their reading books, writing seems to afford the best means of employing them; and as they are generally very young, it is safer to give pencils into their hands than pens. The highest draft of this class must, however, like all the classes in advance of it, use paper instead of slates.

Why certain classes may use slates.

Rule 2. THE PEN.

RULE 2.—*Use steel pens, and supply the children from a stock in school.*

To be steel.

Steel pens are the cheapest; they waste no time in mending, and, from the perfection to which they have recently been brought, they are quite equal to quills in the only points of excellence they were supposed to possess—freedom and softness,—while they are much superior to them in durability, and fineness of stroke. They are, therefore, best adapted to the wants of a public school.

Best kind to be selected by the master.

There are many kinds of steel pens, however; some of them, indeed, so bad that it is quite impossible to produce with them any but small, irregular, scratchy, and cramped writing. The master should make trial of several sorts, and having selected the best, he should use only these. The holders should be pretty long and properly balanced, for there is no more fertile source of bad writing than the use of short or clumsy holders.

Pupils not to provide themselves.

Both pens and holders should be provided in the school; for when the pupils provide themselves, which, unfortunately, is too often the general custom, they may forget to bring them, or they may lose them by the way; their pockets may injure them; they may bring bad pens without the master's being able to remedy the defect at all, or until it is too late; they may not be able to provide themselves for days, when living far from any shops; and with all these defects, which in many cases render the writing impossible, and in the majority of cases make it a source of difficulty and irregularity, the plan is the most expensive to the children.

A stock to be in school.

A good supply of suitable pens must always be kept on hand (a neat box would render them more easily available, and prevent loss), and it is from this that the children ought to be supplied. Each child should receive a pen when about to write, which he must return again, to the proper monitor, at the close of the exercise.

Old and rusty pens to be at once discarded.

The pens must be kept in good working order. Some teachers, through a mistaken economy, retain in stock many that are injured by rust and wear, forgetting that whatever attempts they themselves might make at successful writing with such articles, children, who have neither acquired confidence nor skill, must signally fail if forced to use them.

How to make the pupils responsible, and thus check carelessness.

I am aware that, from the difficulty of making the children individually responsible, the pens are treated less carefully than they ought, but this may be altered by the personal influence of the master, and by providing a small board, pierced with holes, for each class, into which each child may put his own pen, and from which he can take it out when required. As the number of the hole corresponds with the number of each boy in the writing class, the owner of each pen is easily known, and wilful abuse easily prevented.

Expense not

The expense of keeping the school supplied great: how to meet it.

ought to be very trifling,[1] and should be borne by the local managers. But when no special provision is made for it by these gentlemen, the children may be called upon to contribute. One penny from each ought to be sufficient to supply them with pens and ink for the ordinary school year. This they will, I am certain, give very readily, as six times the sum would not supply them so well were each to purchase for himself.

Rule 3. HOLDING THE PEN.

RULE 3.—*Teach the children to hold the pen properly.*

To provide a child with a good pen and a suitable holder will be of but little advantage unless he is also shown how to hold it. Give pens to a class of fifty boys for the first time, and it will be found that scarcely any two of them will grasp it in the same way, and yet there is but one way that it ought to be held consistently with the greatest freedom of motion. All who have been properly taught know what this way is. It is, therefore, useless to describe it in a work addressed to teachers; nor, indeed, could it be described so as to give as correct a notion of it as would be obtained from a single glance at the hand of any good writer.

Difficult to make pupils hold pen properly.

It is exceedingly difficult to make the children hold the pen properly, but no pains should be spared in getting them to do so, for every stroke tends to create a habit, and it rests with the teachers whether that habit be good or bad.

Do not insist upon perfection all at once.

It is not right, however, to insist upon perfection at first, for no one will reach it, and continual fault-finding will only discourage them. Show them what they are to do, assist them to do it, and, by gradual corrections and encouragements, they will in the end attain to the desired excellence.

---

[1] In Ireland, the National Schools are supplied, from the central establishment, Dublin, with steel pens at prices ranging from 2¾*d.* to 3*s.* per gross.

Rule 4. INK.

RULE 4.—*See that the ink is good, and always ready at hand.*

Its quality.

Any one who has much to write knows how greatly the appearance of the writing and the pleasure in its execution are affected by the quality of the ink. It is exceedingly unpleasant to write with pale and watery ink, even when assured that it will turn black after a time; and it is not only unpleasant, but almost impossible, to use ink too thick to flow freely; at all events, no one can write properly with it. It is therefore indispensable that the ink should be good; and it is equally indispensable that it should be always at hand and in sufficient quantity, and these desiderata the master cannot secure if the children are allowed, as they are in most country schools, to bring their own bottles backwards and forwards daily.

Must be always at hand.

Ink-bottles must be inserted in desks.

Ink-bottles should be inserted firmly in the desks sufficient in number for all likely to write at one time.

Shallow bottles objected to.

There are many kinds specially designed for this purpose, but all that are wide at the top and shallow are unsuitable, if not provided with good covers. Such, for instance, are the little lead bottles provided by the Commissioners of National Education in this country, and many of the ordinary ink wells in use in England. These waste the ink too much, and from their being so open at the top they collect dust freely, which, by thickening it, renders the ink worthless. In any case they are quite unsuited for female schools, in which the desks must necessarily be employed for needlework as well as for writing.

Ordinary penny jars a good substitute for the best kinds.

When the best kind cannot be got readily, I find that an excellent substitute for them is to be had in the little jars, such as are sold full for one penny by Messrs. Arnold. They hold a good deal, are not easily upset, and, when properly inserted, they look very well. To do this cut a hole large enough for the body of the bottle to fit tightly into,—not too tight to prevent its being taken out again for cleaning, but tight enough to prevent its falling through —and push the bottle down until nothing but the neck remains above the desk. Provide each with a small cork to prevent evaporation and the admission of dust, and attach this to the desk with fine wire so that it may not be easily lost.

How to insert in the desks.

The teacher will supply these with ink from a stock made by himself from the ordinary powders, or, if he prefer it, from ink purchased in the shops. The expense is very trifling, and should be met as already explained, but the advantages are very numerous.

Teacher to make the ink himself, and keep the bottles supplied.

All the schools in my district are now supplied in this way, and as a consequence every child is certain to have good ink, and is, therefore, sure of writing daily; while all confusion from borrowing, from getting the ink-bottles out of this hiding-place and that, and all waste of time, are thus prevented. There was some trouble at first in introducing this system, but the advantages arising from it are now confessed even by those who most opposed the change.

All schools in my district are supplied in this way.

A small tin vessel with a fine spout, something in the form of a can for oiling the wheels of a carriage, is very useful for pouring the ink into the small bottles. Without such a contrivance much of it is spilled, and the desks are soiled.

A small tin vessel to pour out ink recommended.

RULE 5.—*Every master should have upon his rostrum and for his own use a proper supply of pens, pencils (slate and lead), and of ink (black and red).*

Rule 5. SUPPLY FOR MASTER'S DESK.

This is so evidently what ought to be, that nothing but the knowledge of its extreme neglect can justify a special reference to it. Teachers are, for the most part, content to borrow from their children. When they want a pencil they ask for it, when they want a pen they appeal to their children, when they want ink they must search through the school for it, and this I have always considered disgraceful. A neat japanned ink tray can be had for a few shillings, and will wear, with moderate care, for many years. No teacher should be without one. It is neat and serviceable, and may lead to neatness very often in the children also. Whether the ink tray is got or not, however, the other articles should be procured and kept in whatever way each teacher may find most convenient for himself.

Rule 6. COPYBOOKS.

RULE 6.—*The copybooks must be suitable, and carefully kept.* They must be uniform, so that all the children in the writing class may be finished about the same time; and they must not contain more than from eight to ten lines in each page, so that the model for imitation may not, even at the close of the exercise, be too far removed from the pupil's eye. (The books may be somewhat longer to compensate for this.) They must be neatly covered, and, of course, the paper itself must be of good quality.

Description of.

Books in Ireland good.

The Commissioners of National Education in Ireland furnish their schools with very admirable little copybooks for writing purposes, and with larger ones for book-keeping. In their schools none others should be used, as none others are equally good, or equally cheap. It often happens, however, that the copybooks met with in them are untidy and filthy, and of all shapes, sizes, and quality, and this notwithstanding that sixty copybooks can be had for five shillings, and that a parcel for this, or even a smaller sum, will be sent from Dublin carriage free. I always regard a bad supply of papers and its attendant evils as wholly inexcusable.

Yet not extensively used.

More difficult in England to get a good supply.

In England it is somewhat more difficult and more expensive to keep the schools well supplied; but it is a most important duty, and the manner in which it is done will determine to a great extent the success of the writing exercise. No good teacher should, therefore, permit it to be neglected, no matter how great the inconvenience may be. When the Irish

National Schools, with the advantages they possess, are so badly supplied, it is natural to suppose that the English schools are badly supplied also; so, in fact, they are. Mr. Kennedy complains in several of his reports both of the quality and quantity of the books used. He says, 'I have again to complain of the imperfect supply of copybooks in schools, and of the very indifferent nature of the copybooks. In some cases the very injudicious plan is followed of allowing the teacher to sell the copybooks to the scholars. I do not think that this looks well, even if the schoolmaster makes no profit by the sale. In most schools, however, the scholars find their own copybooks; and the consequence is that there is no definite system pursued, and the copybooks are the cheapest and worst.'

Mr. Kennedy's remarks.

I have already shown the evils which arise when the pupils supply themselves with pens and ink, and recommended the discontinuance of such a practice; those which arise when the pupils supply themselves with paper are quite as bad, and are quite as much to be opposed. This is a subject well deserving of the attention of both teachers and managers. Mr. Kennedy recommends that the managers in England should find their own copybooks and supply them gratuitously to the children; but, whether they do so or not, they should take some steps to secure for their schools a regular supply of copybooks possessing the following desiderata—*uniformity of size, shortness of leaf, good quality, and neatness of appearance.*

Must clean

Whatever may be the character of the book, it must be kept scrupulously clean. The writing exercise may be so conducted as to lay the foundation of habits of attention and neatness, or, with even more certainty, of slovenliness and carelessness. It is the master's duty, therefore, to insist upon great neatness in the copybooks, upon thoughtfulness in the performance of the exercise, and upon perfect cleanliness and taste. The copybooks must be untorn, and uncrushed; they must be as free from filth, from dust, from blots, from scribbling, and from every other mark of neglect when finished, as they were on the first day. This they can be, by some care and watchfulness, and no point short of this standard should satisfy any teacher.

How to secure cleanliness.
(1.) Covers to be always out.
(2.) Strict examination of each book.
(3.) Use of straps and boards.
(4.) Not allowing them home until finished.

In order to secure this degree of neatness, &c. (1) prevent the children from doubling the books on the desks—turning the cover in, and so leaving the white leaf to collect the dust. (2) Examine them carefully, and check with great strictness any perceptible faults. (3) Adopt the plan recommended for keeping the dictation copybooks, that is, between two boards, those of each class forming a separate bundle; and (4) do not allow the children to take the copybooks home until they are finished. In carrying them backwards and forwards they are always soiled and bruised, and when at home they are scribbled upon by the children themselves, or by some of the family, and very often half filled with ballads which are obscene or otherwise objectionable.

By such means, good habits will be formed in all, for no child is incapable of learning to be tidy and careful;—nay, none will find it even difficult to learn, if the observance of the proper rules is insisted upon from the very outset, and continued as a daily practice.

Rule 7. POSITION OF CHILD.

RULE 7.—*Attend carefully to the position of the child.* He must sit firmly but easily, his legs stretched out, and his feet resting steadily upon the floor; his body, with the exception of a very gentle inclination of the shoulders forward, must be upright; his left hand resting on the nearest corner of the paper, while, at the same time, the left elbow is kept off the desk and brought closely but not stiffly to the side. The weight of the body should be thrown slightly upon this arm, so as to leave to the other a greater freedom of motion. The elbow

True position described.

of the right arm should approach the side, and the hand, with the pen properly held in it, should move easily over the paper, the pressure of the fingers being just sufficient to give the pen steadiness.

A constrained position not only prevents good writing, but injures the health.

Should sit in straight lines.

The pupils should sit in straight lines—one behind the other—for this not only looks well and promotes order, but it enables the master to detect readily any violation of the details just sketched. To prevent trouble in arranging them in this way, mark upon the desks either numbers or lines, opposite which the children must sit, allowing a space of eighteen inches between every two. The desk of nine feet, which is the usual size, can accommodate six children properly when writing, but no more.

Why.

Desks should be *spaced* to secure this.

Recommended to divide each desk for 3, 4, 5, and 6 children.

In some schools, I find that each desk is divided for three children, for four, for five, and for six—the figures 3, 4, 5, and 6, being painted at the proper distances. When the master finds that the attendance admits of it, he directs three to sit in each desk, or four, or five, as the case may be, and by the help of the painted figures the children are at once able to do this without confusion. When three are to go into one desk, they sit opposite the figure three, when four are to go into it, they sit opposite the fours, &c. This arrangement is very serviceable in the dictation exercise; more so, indeed, in it than in the writing, as it assists materially in the prevention of copying, prompting, &c. I think it should be adopted in every school.

Very serviceable—in *dictation* especially.

Place of the copybook in writing.

The copybooks must be opened out to their full length, and lie evenly on the desks. Their tops should be parallel to, or should touch the horizontal ledge, so that they will appear to form one straight line when viewed from either end of the desks. This must be carefully insisted on, as the pupils have a great tendency to pull their books crooked, and, as a consequence, to sit incorrectly themselves.

Rule 8. IMITATION.

RULE 8.—*Above all things endeavour to cultivate in the children the habit of imitation.*

Writing is almost entirely a matter of imitation, and progress in it will depend upon the success of the master in inducing the children to follow what is set before them. It is a manual art, and one of the easiest and simplest when rightly practised.

To acquire the habit of, is of the utmost importance.

To acquire this habit is, therefore, of the utmost importance to the child. In fact, without it failure is certain. And it is in the means recommended by me for securing this, that my system of teaching writing chiefly differs from those at present in force.

It is in securing this that my system differs from others.

I believe this system to be founded on correct principles, and, from the long experience I have had of its actual working, I can vouch for the certainty with which success will follow when it is carefully carried out.

Errors to be marked, *and same copy given next day.*

First, then, *Mark all errors of imitation, give the same line again, and continue it day by day until the defects are removed.*

Model must be imitated in all points in which it is a model for writing.

The model set before the child must be imitated in all the points in which it is a model of writing, that is, *in the breadth of the strokes*, in the *size* of the letters, in their *slope*, their *regularity*, their *distance*, in the *manner in which they are joined to each other*, and, of course, in their *shape*. The errors of imitation which must be marked will therefore arise from neglect of some of these points, and it is to these alone the master's corrections and instructions should have special reference.

How to note the errors.

(1.) Thus, if, in the child's writing, the 'hair' strokes are heavy, and the down strokes light; if the letters, *when compared with the head line*, are too small, or too large; if they are too upright or too slanted; if they are not uniform; if they are too close or too far asunder; if they are, as often happens, not joined together, or if they are joined improperly; if they are not of the shape intended, then the master must record at the top of each page the nature of the defect; as, 'too small,' 'too close,' 'not sloped,' 'not level,' &c., and in setting him the same head-line next day, he must draw the child's attention to these observations, and insist upon the removal of the faults.

(2.) When the letters are not *sloped* properly, the true slope should be marked over the wrong one, in any letter selected in the copy; and when letters are not *level*, it is sometimes sufficient merely to draw a line over the top of any word (not of all words), to show that they do not all touch it. When single letters only are wrong, one of them may be selected, and the true form written beside it. By such means the markings at the head of the books will, in many cases, be rendered unnecessary.

When several errors occur, most prominent to be taken first.

What the chief ones are.

When several errors of different kinds occur in the same copy, the most prominent should be corrected first; for, if required to attend to the removal of all at the same time, the child may be so confused that he will attend to none. The chief faults consist in the breadth of the stroke, in the slope and irregularity of the letters, and in the distance between them, and when these are removed it will be easy to make the children write the letters of the proper length, &c.

Hair strokes, attention to, makes a great change sometimes.

Attention to endings, also.

Success of old teachers arose from this.

Rev. J. Blandford's opinion.

It is astonishing how great an improvement is effected sometimes in the appearance of a copy, by simply requiring the child to make the *up* and *down* strokes of the proper relative thickness, or by causing them to write level, and keep the endings of the words in straight lines below each other. The old teachers paid great attention to the latter point, which, in their phraseology, was called *the terminations*. The Rev. J. Blandford says,[1] 'They impressed upon the minds of their pupils (not unfrequently through the medium of the cane), this rule, that each letter and word formed in every line of a page in a copybook must occupy the same space in it that they do in the copy itself. Now, when this is done, the result is regularity in the ending or *termination* of the same words in each successive line of the page, so that a straight line drawn through any letter in the top line of the book would pass through the corresponding letters below.' He adds, 'It is no easy matter to write a copy with this regularity; the process requires an observing eye, a light and flexible hand, and above all, *slow* writing; but these three points, especially the last, are precisely those that are involved in the rules for teaching good writing, and it is to the neglect of them that the degeneracy of the writing of the present day is in no slight degree to be attributed.'

---

[1] Min. of Council, 1856–7, p. 372.

What this rule secures.

Attention to this rule is the easiest way by which the teacher can test whether the children adhered to the three points mentioned or not, for a mere glance at the copy will detect the faults. When the letters &c. are not straight under each other, a line drawn vertically through any of them, from top to bottom of the page, is a sufficient indication of the nature of the error, and a sufficient guide for the child next day.

This error may be marked by a line.

Basis of this system of imitation.

This system is based upon the fact, that writing, like all other imitative arts, is learned better by imitating one model for some time, than by imperfectly imitating several of different kinds. But the great advantage of it as an agent in teaching is, that it gives to the master an opportunity for seeing how his instructions were understood, and to what extent they influenced the practice of the child. Other systems rest satisfied with pointing out errors (in many of them there is liberty to neglect even this), but they fail to test how much of the explanation has been of value and will be actually applied.

One of the things its superiority is manifest in.

Present systems do not *enforce* imitation.

Consequent *neglect of it. Examples met with.*

How often have I seen cases in which the model *was of the right* height, but where the pupils, who were supposed to be copying it, wrote so small as scarcely to ascend above the ruling! This was chiefly in girls' schools, where small writing is affected for its supposed neatness. Again: how often have I seen the letters of the model uniform in slope &c. but where the would-be imitation was deformed by every irregularity; the *n* higher than the *m*, the *o* and the *e* being scarcely distinguishable; the *t* having one slope, the *l* another; while the down letters, as the *y* and *g*, exhibited directions different from both; the distance between the letters being at the same time so different, that where a word of the model occupied, say, two inches, the same word written by the children either occupied half an inch, or, in the opposite extreme, three or four; the strokes being either of the same thickness, or heavy where they ought to have been light, and unconnected with each other! And when I say that I have often met with instances of these faults, I mean that I have met with them leaf after leaf throughout the entire copybook, without any appearance of correction. In such cases the children, instead of learning to write, were merely confirming, at the sacrifice of much time and trouble, bad habits.

One system *teaches* writing, the other *practises* it merely.

By the one system, in fact, writing may be said to be acquired by being *practised*; by the other, by being *taught*.

Verbal corrections will not do.

Some teachers, instead of recording the errors at the top of the page, merely point them out verbally to the child; but this is not a good plan; and, moreover, it is the effect of laziness. In such cases, the *child* may forget the instructions, especially if he happen to be absent on the next day; and the *master* is almost certain to do so. There is therefore no guide to assist the one in avoiding the faults previously committed, or to assist the other in seeing that he has done so. In fact, in such cases, a new revision and *new instructions* would be called for. The only plan is to *write* the errors, and then no mistake can possibly follow.

Mr. Moseley's plan may be grafted on mine.

Mr. Moseley sketches out an interesting plan of teaching writing, by which that which I have just described might be judiciously varied. He recommends that each succeeding line, instead of being the same, should be a variation of the first, and an extension of it. Thus, 'God is good;' then, 'God is good to all;' then, 'God is good to all men' &c. The result, he says, is 'remarkable.' He found infants writing this exercise well who had not been learning to write *more than a fortnight*; and he gives, in his report, the following remarks upon its superiority, from the pen of the Rev. G. Lucas, Incumbent of Stone. This gentleman says: 'I took eight children from the infant school, on the 29th of November last, *of the ages of from four and a-half to five years old.* They only just knew the alphabet. All can now (February 18) write, and two of them can write *very well.*'

What his is.

Example of its success in Stone.

Pupils must know their errors, and *why* they got any line again.

But, in order to secure the due cooperation of the children, care must be taken to see that they fully understand the nature of the errors, and the exact reason they got the same line again.

Rules may be given to assist them.

To assist them in this, the master should not only draw their attention personally to the faults of imitation, exemplified by comparing their own lines with the model, but he should also supply them with certain general rules, by which they may be guided as to the slope, height, distance &c. of letters.

Letter *n* to be taken as standard, and the height &c. of other letters to be determined by it.

The letter *n* being taken as a standard, the heights of all the other letters, the distance of their parts from each other, and the extent of separation of each pair of letters, will all be found to bear certain proportions to it. These any treatise on writing will supply, or the teacher can make them out for himself by comparison of the letters; and then he can frame them into such easy rules as will be intelligible to the children, and be of ready application.

True proportion essential in *legible* writing.

A true proportion existing between the letters not only makes the writing look well, but makes it legible.

How to explain the rules by examples.

To illustrate these rules, two specimens—the one of good writing, and the other of bad—may be written on the *black board*, and compared with each other. The pupils can be made to point out the faults, and account for them.

Child may be made his own critic.

It is also a very good plan to make the child his own critic, by calling upon him occasionally to point out for himself the faults of imitation he may have committed in any copy; or you may select for him any line, and ask him to say in what way it deviates from the model. This induces him to scrutinise every word and every letter, and must, in the end, produce such habits as will be certain to secure success.

Must regard a frequent repetition as disgraceful.

He must also be brought to regard a frequent repetition of the same line as a species of disgrace, for, unless he do, he may get the same line over and over again without attending to it, and of course without advantage.

Supervision required for all these.

All this requires active supervision, and it is important to inquire *how* this supervision is to be secured, and *at what time* it is to be performed.

It should not be so personal and constant as is usually required.

On these points I hold opinions somewhat different from most writers on education. It is generally held that writing should take place only under the constant and immediate supervision of the teacher, but my impression is that this is unnecessary to the extent insisted on.

Argument to show this, and three reasons why supervision is required at all.

Supervision appears necessary, to test (1) whether the children hold the pens correctly, (2) whether they sit properly and have the paper in its proper place on the desk, and (3) whether they pay due attention to the imitation of the model.

Going through desks does not secure the first two, certainly.

It is evident that the practice of going through the desks during the writing exercise, which is the course commonly advocated, is not only not the most correct to secure the first two objects, but, in reality, it is about the very worst, for, when a master is passing through one desk, his back is to the others, and therefore he renders himself unable to superintend a large number of his class. It is the *eye* that detects such irregularities, and going through the desks necessarily limits its range and influence materially.

This fault is exactly like that which is committed, and which all admit to be a fault, when a master, in teaching a class on the floor, moves about from boy to boy, instead of standing in the centre, so as to command a view of all.

Those who insist on it do so to secure the third advantage.

Those who require, therefore, constant and immediate supervision must think it necessary chiefly to secure the imitation of the model; and this, I believe, is generally what they say. They consider that children will pay more attention to this essential element of all success, when writing under the eye and with the assistance of the teacher, than when left to themselves; but they forget that such supervision secures the attention of but one child at a time. The boy with whom the master is engaged will be attentive, but all the others may or may not, just as they please. To carry out such a system effectually would require a teacher or monitor for every boy.

But this it can only do by having a teacher for each child, and this is impossible.

It makes an economical arrangement of the teaching power impossible.

It also renders an economical arrangement of the school-time impossible, by withdrawing the teacher from those lessons which the children cannot possibly practise by themselves, and forcing him to attend to what, if left to itself, would go on quietly, industriously, and successfully. And when the few hours which make up the school-day have to be divided among the numerous subjects which form the ordinary course of instruction in a primary school, it is always of paramount importance to make as many lessons self-teaching as possible, and to reject all systems that prevent this.

Even if possible, it would not be judicious.

But even supposing that this system could be fully carried out, and that it did not waste the master's time, I still question whether it would be judicious to adopt it, as it does not afford to the teacher a fair enough test of what each child can really do. What is done under constant supervision is no test of what can be done if unaided. It may, indeed, be done well; but no one ought to accept the result as a sample of ordinary proficiency.

Besides, the tendency of such supervision is to secure imitation at the expense of the other points of a good exercise.

It is said to remove faults immediately.

It may be said, indeed, that by this system many faults are immediately removed, which would otherwise be continued throughout the copy, but I question whether or not it is of advantage to remove them until the end, and whether the time withdrawn from other subjects for this purpose would be at all so well spent as if not so withdrawn.

This is a questionable advantage, and too dearly bought.

A child so superintended has not a fair opportunity of exhibiting the faults he is most likely to commit, and, therefore, a teacher may be consuming time in the removal of errors which might have been only accidental, and therefore unimportant. But when the child is allowed to finish the copy before examination, the true source of each error will be discovered, and, even if some are found to continue from the beginning of the page to the close, the very frequency of this occurrence will afford to the teacher the best means for pointing out its nature, and to the scholar the strongest inducement to avoid it for the future.

Constant supervision is, in fact, a necessity in the present wrong systems.

The fact is that constant supervision arises from neglect of the true method of securing imitation, and is part and parcel of all systems which do not give *the same line day by day until all faults are removed.* When different head-lines follow each other, it becomes a serious matter to allow an error to run through a whole leaf, for there are no means by which the evil effects of this recurrence can be remedied, if once created. Those who adopt such a course are, therefore, forced to check errors as they appear. But, in my system, prompt checking is not only not necessary, but may even be a disadvantage; a considerable saving of time is, therefore, effected, and if it did nothing but this it would be worthy of adoption.

No part of a true system.

What amount of supervision is really required, and how to secure it. In the senior classes.

Acting upon these views, I have always directed the teacher (1) to form a class on the floor near the desks in which the writing exercise is going on; and (2), *in the case of the senior classes*, to limit his interference to the detection of any who sit badly, hold the pen improperly, write quickly, disarrange the copy books &c. For all this he can do by a mere glance of the eye, and an occasional correction of the worst boys, without neglecting the immediate business of the draft before him. *In the case of the junior classes,* he must, at the commencement of the exercise, not only tell the children what to do, but he must actually help them to do it. Their youth and inexperience require such a course. A quarter of an hour may thus be spent, but after that they must, like the others, be left to themselves, to show what skill they have acquired, and what kind of defect each will commit. A monitor may judiciously be kept with the most inexperienced.

In the junior classes.

(3.) At some convenient time *after the copies have been finished*, the teacher is to examine each diligently, pointing out not only the errors of imitation, on the system already explained, but all defects of spelling, of neatness &c. He must do this fully and carefully. Up till now he was as much a disciplinarian as a teacher, but at this point he assumes his own peculiar province — of improving — and upon the way in which he discharges this duty his future success will depend. *If he is careful and attentive, his pupils will become careful and attentive too.*

(4.) He will explain all notings fully to the children when necessary, chiefly to the youngest, either just previous to next day's exercise, or when most suitable. In some cases I have recommended the teacher to call the children up for this purpose individually when engaged at 'arithmetic from books' in the desks. They can leave the *sum*, and return to it in a few minutes again without much loss or inconvenience. By some such means a whole class is not kept waiting, while the errors peculiar to one boy are explained to him. These details can, however, be easily arranged by each master for himself.

These are all that are necessary in the way of supervision. *They are all that are actually practised in this district*, and the writing in many of the schools is very good. I therefore recommend nothing which I have not already known to succeed.

Rule 9.
WRITTEN MODELS.

RULE 9.—*The model must be written at the top of the page by the master himself.*

Many writers are for, and many against, *engraved* lines. And all appeal to results.

Fallacy of judging solely from results.

This rule opens up the question as to the propriety of using engraved lines for the purpose of teaching writing. Many eminent educationists are in favour of them, while quite as many are against them, and both appeal to results to establish the truth of their statements. It is strange that those who take such widely opposite views can equally appeal to results, but this is especially the case in controversies about the teaching of writing, and seems to me to proceed from the fact—which cannot be too strongly impressed upon the teachers—that almost any system will produce good penmanship if carried out zealously and efficiently, while on the other hand even the best systems will be practically worthless if joined with unfaithfulness and negligence. The master is superior to the system, and will have good writing, even in spite of methods, *if he be only determined to have it.*[1]

---

[1] '*There will be good writing* whenever the master deter-

This is no reason, however, why the system should not be correct in principle; for the same zeal and energy, when devoted to a good system, will be infinitely more successful than when devoted to a bad one.

To enable the teacher to form a true judgment on the question of engraved lines, I shall state briefly their merits and defects.

Two kinds of engraved lines.

There are two kinds of them—*the copyslip*, which is moveable, and the *engraved line at the top of each page.*

Copyslip may be moved down close to the eye, and may thus prevent the pupils from imitating their own lines.

The great argument brought forward in favour of the first kind is, that the child can move the copyslip towards him as he writes, and thus avoid the danger of taking as models the lines he himself has made.

It must be admitted that children are very prone to fall into this error, and that every line they write makes the imitation of a fixed model more difficult, not only from removing it farther away, but from the insertion of other lines, which are, in turn, very likely to be referred to as models also.

But moveable slips not the proper remedy.

Making the model moveable, however, is not the proper course to adopt to cure this tendency. It is not a case which a mechanical expedient will reach. The

---

mines to have it, even when he writes a bad hand himself.' —Mr. Fletcher's *Report. Min. of Council,* 1846–7, vol. ii. p. 92.

'Good writing is acquired even in spite of the methods used.'—Mr. Kennedy's *Report. Min. of Council,* 1849–50, p. 180.

Mr. Currie, in his valuable work on 'Common School Education,' says, 'Almost every method for any subject which has ever been propounded makes this claim, doubtless with sincerity, and with a certain amount of truth. To admit this is only to admit, in other words, that the teacher is of more importance than his method. A cheerful, earnest, and judicious management of his pupils will secure success for him, whether his method be true or false; since it is moral considerations which determine their progress, rather than the intellectual propriety of the course they are following. *The teachers who have brought writing methods into notice have believed in them, and have laboured with devotion in the use of them.*'

True remedy in attending to rules for imitation.

fault is simply one of neglect and inattention, and the true remedy is to be had in stricter supervision, and more careful and earnest enforcement of the rules for imitation already laid down. When the habit of imitation has once been formed, it is quite immaterial whether the model is six inches away or only one, and where it is not formed the model will be utterly worthless, no matter where placed.

Evils of 'slips.' Pupils move them off the books, and do not *copy* them at all.

Those who advocate the use of these slips seem to forget that the very ease with which they can be moved down, line after line, suggests their entire removal from the book, and that, in practice, for one who moves them as they are expected to be moved, hundreds move them off altogether after the first line, and never consult them more.

How to establish truth of this.

The truth of this may be easily established from an inspection of a writing class at actual work, or, even, from looking over the slips themselves; for these will be found, in general, so disfigured with ink and dust, so torn and scribbled, that it is a matter of great difficulty to make out what is on them, and of sheer impossibility to use them as models.

Engraved lines suggested to remedy this. Mr. Keenan and Mr. Hunter in favour of this remedy.

To remedy this it was proposed to supply copybooks having engraved head-lines on each page. Mr. Keenan says, 'Until this is done, I see no hope of any decided improvement being effected in the writing of our pupils,' and Mr. Hunter supports this strong statement by one equally strong. He says, 'Writing will never be in that advanced state in which it ought to be until the copybooks are supplied with appropriate head-lines.'[1]

Advantages.

The only advantages, however, which these possess over the moveable slips are, that the child is unable to throw the models aside, and that he is not likely to disfigure or injure them. The last is of course an improvement, but, as I said above, the mere position of the model is of questionable importance.

---

[1] *Reports of* Commissioners of National Education, Ireland.

Objection.

These lines are liable to the objection of offering no check to the tendency (already alluded to) to copy their own writing, instead of what is supplied for their imitation.

Arguments in favour of both, and against written lines.

(1.) Teachers may write badly. Such should be dismissed as incompetent.

(2.) Consumes time.

But this is an advantage, as it is well spent.

The arguments in favour of both kinds, as opposed to written lines, are (1) that the model is always certain to be good; (2) that there is no consumption of teacher's time and energies in setting copies. But with regard to the first, I think that a teacher who is unable to set a good line for the children is, like a bad reader, or a bad arithmetician, unfitted for his office. It has too long been the fashion to overlook proficiency in writing when testing the merits of a teacher, but it would be absurd to regard as valid an argument in favour of the present system drawn from this neglect. And, with regard to the second, it is the very facility with which teachers can devote their time and energies to other subjects, to the neglect of the writing, which has chiefly caused the bad results which admittedly prevail. Had the teachers been *forced* to inspect the copies, to set the lines, and adapt them to the peculiarities of each child, there would have been to-day more good writers than there are.

Amount of time required not great.

Without time and trouble no good results can ever be expected; but in this case the consumption of time and the amount of trouble are not quite so formidable as they appear.

Sixty can be set in half an hour.

It takes exactly thirty seconds to write a head-line carefully and neatly; sixty of them can therefore be written in half an hour, a number higher than in the writing classes of the majority of schools; and surely this time is not too long to devote to so important a subject as writing, if it be proved that success depends on such a course.

Great objection against an engraved *line, that it*

The great objection against an engraved line, whether moveable or immoveable, is, that it does *not allow* of the proper steps being taken for securing the habit of imitation, the chief of these consisting in a continued repetition of the same line until detected errors are removed. I am aware that with moveable slips this repetition might be effected, but only with an amount of attention which it is quite hopeless to expect, and a consumption of time which could be ill spared from the other pressing engagements of the day. In actual practice no attempt is made to secure a gradual increase of difficulty, or a regular repetition, as the case may require. A boy receives on one day a difficult piece, and on the next an easy one, the rule being to write from what is first given out. Of course, when the lines are permanently engraved in the copybooks, a repetition of the same line, no matter how urgently such may be desired, is quite impossible; yet such a repetition is so essentially an element of success, that the impossibility of attaining it is the strongest possible condemnation of any system that can be advanced.

does not allow of the application of the best rules for imitation. Because repetition of the same line is impossible;

Another important element of success is the adaptation of the head-line to the peculiarities of each child. If, for instance, I find that a child writes too large, true teaching requires of me to make the next head-line a little smaller than is customary, so that, in keeping the relative proportion, he may hit the exact size; if, on the other hand, he write too small, the line ought to be made a little larger than is usual; if he write too close, the letters of the head-line ought to be separated in excess of what is correct, and so on with other defects. In fact, not only should the same head-line be continued next day, but it should be precisely suited to the wants of each and calculated to remove them.

And because head-lines cannot be specially fitted for each child.

Special adaptation essential.

Explained.

Written lines can be varied in any way the master pleases, and are therefore infinitely superior to engraved lines, which admit of no variation.

Written lines may be varied in any way.

Written lines are also better, because the engraved ones, by presenting too high a standard, dishearten

Engraved lines present too high a standard.

young children, and make them despair of attaining a proficiency which is apparently so far beyond their reach; and also because the teachers are led, from the fact of writing the lines, not only to take a greater interest in what is thus brought so frequently under their notice, but, from noting each child's progress, they are necessarily driven to adopt proper remedies for the removal of errors.

Do not require enough personal attention from teacher to each boy.

Written lines admit of more time to intellectual subjects during school hours.

They are also superior to the others, because they permit the master to give more time to the more intellectual portions of the school course without any sacrifice of efficiency in the writing exercise, by not requiring from him, as has been already shown, a constant and direct supervision of each paper during the period the child is engaged at it.

Girls best from not using engraved lines.

Girls' writing is generally much better than boys', and this I account for chiefly from no engraved lines being used in our female schools. The mistress must write the lines, and the children must imitate them, and this they have done to a wonderful extent.

Where written lines are used, pupils write like teacher.

Where engraved lines are used it will be found that the boys write different hands, showing clearly that they have learnt to write by *practice* and not by *imitation*; but where written lines are used, one style—that of the master—runs through the entire school.

No engraved lines in this district for several years. System practical and successful.

No engraved lines have been used in this district for several years. I have, therefore, had a larger experience of the system of written head-lines than most others. The results have clearly proved to me that it is practicable, that it does not interfere with other subjects, and that it is most successful.

Dr. Patten's experience the same.

Dr. Patten's[1] experience leads him to the same conclusion. He says:—'I am inclined to think that the pupils will make greater progress in imitating a copy set by the teacher, than in writing from any of the engraved specimens commonly met with: *in all schools I have recently visited, I have found this to be the case with scarcely an exception.*'

---

[1] Head Inspector of Irish National Schools.

Mr. Fletcher.

Mr. Fletcher[1] says:—'One essential condition of obtaining good writing is to have the copies carefully set by the hand of the master. This makes a boy feel at once that what one hand has done a hand may do.'

Mr. Fraser.

Mr. Fraser[2] says of the teacher already alluded to, (whose school was so popular owing to the writing), that 'he set the copies himself over-night.' And this is true not only of him but of all the successful 'venture' or 'hedge' teachers of the present day, and of the entire race of those old men who were formerly so celebrated for their skill in securing good penmanship.

That large schools cannot adopt this system, is no argument against it.

It is no argument against it to say that many schools are too large to adopt this system, for it is equally impossible in them to examine the copybooks carefully and strictly, and no person will say that such is not indispensable. All monster schools are, in fact, exceptional imperfections. They are forced to adopt what is *practicable*, in preference frequently to what is *best;* and this not in writing only, but in most other subjects.

But one teacher will set the lines.

But one teacher should set the head-lines. When two or more write them, the pupils are called upon to imitate one style on one day and a different one on the next; or one style in one class, and another when they leave it. The principal teacher should take this duty on himself, as he is likely to remain longest in the school. There can be no objection to the assistant's marking and examining the copybooks when qualified to do so; or, as a proper division of labour, he may take charge of the dictation exercise while the master takes charge of the writing.

To be set *before* or *after* school.

The lines should always be set before or after school hours. No teacher ought to complain of this extra work as being too fatiguing after the labours of the day, because the constant occupation of five hours, during which the children attend, cannot possibly exhaust the energies of any healthy and earnest man. There is scarcely any office in which the working hours are not more numerous. Besides, the amount of time required for this duty is not very great.

---

[1] One of Her Majesty's Inspectors in England.

[2] *Assistant* Commissioner of Education.

The morning is a good time.

In Ireland, the Commissioners oblige each teacher to be in attendance half an hour at least before the children assemble. This affords a good opportunity for setting the lines. If it is not compulsory in England to attend in this manner, the teacher will find it his interest to come of his own accord, and devote the time to the duty just mentioned. Any other time will, however, answer quite as well; the great thing to be aimed at being the completion of the task before the business of school-day begins.

Two or more lines may be written on one leaf to check tendency of boys to copy their own.

It was said that one of the evils of a *top line* is the tendency to copy the lines which follow it instead of itself. The true remedy is, of course, in greater attention to the rules of imitation, but the temptation may be considerably lessened by having the copy-books narrow, and by setting two or three model lines at intervals down the leaf. One, for instance, might be on the fourth line, and another on the seventh. This will only be necessary, however, in extreme cases, or with the junior classes.

Head-lines must increase in difficulty with each class.

The head-lines must increase in difficulty with the class in which the children are. In writing, as in other subjects, there should be a gradual progress from the lowest to the highest proficiency.

The following is the standard which I think should guide the teacher, and which should be considered as the *minimum* for each class:—

***Minimum* standard for each.**

The best draft of first (the lowest) class, should write the elements of letters (the other drafts practising on slates, see Rule 1).

The lowest draft of second class—letters and easy words.

The highest draft of second class—words, and easy *sentences.*

The next class (sequel)—ordinary sentences *fairly*.

The next class (third book)—ditto *well*; while the next should write—a good hand with ease and freedom.[1]

(Of course this is but a *general* guide, and many exceptional cases will necessarily occur with which each master may deal as he thinks most correct.)

The elements of letters are strokes, loops, and curves.

Explanation of.

The single letters should be given in groups, arranged in the order of their difficulty; as, for instance, n and m, in one group; i, w, u, v, r, in the next; a, c, e, o, s, x, in the next; and in the last the long letters might be included, such as b, d, g, y, q, j, z, h, l, t, f, k. It is by no means right, however, to make the children perfect in the formation of all the letters before allowing them to attempt words. It is better to make them combine the letters of one group during the time that they are learning to form those of the next. Thus, so soon as a child can form *n* and *m* pretty fairly, he should be required to form the compound *nm*. When he has acquired skill enough to form the letters of group 2, they can be joined with each other, and with those of the first, into words like *man*, *win*, *run* &c. and so on with the others.

Examples of bad headlines.

In all cases such absurd words as the following ought to be avoided; they are taken from Mr. Brodie's report, Min. of Council, 1860-1, p. 188: — 'Zumiologist,' 'Xenodochium,' 'Opinionist,' 'Ichneumon,' 'Temperament' &c. The copy lines should generally consist of small words, and they should always be within the comprehension of the child. Moral truisms and pedantic truths might also be avoided with advantage.

Rule 10. BEGIN EARLY.

RULE 10.—*Begin early, and pay great attention to the junior classes.*

---

[1] These remarks apply to schools in Ireland, but the principle is easily adapted to any school.

Common practice is to teach reading only for some time.

At present, the general custom is to teach nothing during the earlier portions of the child's school life, but reading. The young beginner is confined for many months exclusively to the alphabet and easy monosyllables, though, by judicious management, he might acquire in the same time concurrently with the reading, and with no additional trouble, but even with pleasure, the ability to write pretty fairly, and, as will be shown in the next chapter, to count intelligently and correctly.

This is wrong.

Young children learn to write with ease and pleasure.

So much of his time is, therefore, sadly wasted. Very young children are not only capable of learning to write, but they learn with great ease and pleasure. They look upon it as a pastime and as an agreeable change from learning the letters, rather than as a task. And this because of its adaptation to the faculty of imitation, which is at that age in a state of great activity.

Rev. G. Lucas.

The children upon whom the Rev. G. Lucas tried the system sketched out by Mr. Moseley (see page 154), were only *four and a half to five years old*, and yet all could write in less than three months, and two of them could write very well. There is no reason why other children should not do so likewise, if the same advantages were extended to them.

In some countries writing *precedes* reading;

In fact, in Switzerland, and in some parts of Germany, children are taught to write before they learn to read. This course is adopted from the importance which the educators in these countries attach to the strength of the faculty of imitation in very young children, and to the great assistance which may be derived from this faculty in the earliest stages of instruction. The results obtained in these schools justify them in this. The children are, by the writing lessons, led to distinguish the peculiar forms of the written and of the printed characters *with much* greater ease and success, and they are

And with good results.

able to apply the important agency of writing in all the subsequent processes of instruction.[1]

Boldness follows early writing.

Writing can be made thoroughly good only after a long and progressive series of carefully conducted exercises, and boldness and ease will be impossible unless it is commenced young.[2]

Writing and reading must go together.

Writing and reading must go together. When a child begins to learn the letters, let him begin to form them. Let him be taught to read by writing, and, conversely, to write by reading, so that every advance he may make in one subject will contribute to his advance in the other.[3]

Great care required for junior classes.

Great care is necessary, however, in the superintendence of these early efforts. Too much care, in fact, cannot be given to the class of beginners. When pupils are allowed to pick up and practise defects, they acquire habits which can scarcely ever be removed afterwards; and even if removed, the time and labour which their removal requires are far greater than would have been sufficient at first to prevent their formation.

Yet not given to them in general.

Yet these classes are very much neglected, for, as Mr. Sheridan says,[4] the usual practice is 'to write

---

[1] Min. of Council, 1844–5, vol. i. p. 146.

[2] Min. of Council, 1859–60, p. 188.

[3] Mr. Moseley says, 'Writing and reading must go together.'—*Min. of Council*, 1846–7, vol. i. p. 162.

Mr. Bellairs, in his report for 1848, Min. of Council, 1848–9, vol. i. p. 120, says, also, that 'As soon as a child begins to learn reading, he should also learn writing, and as soon as he can copy letters they should be dictated to him.'

In many schools in England *reading* and *writing* are taught simultaneously. See M'Leod's 'My First School Book.'

Mr. Gill, in his work on 'School Management,' p. 131, says, 'When to begin teaching to write has been a much controverted question; but most teachers seem now to acquiesce in an early commencement. In the minutes of 1840, it is recommended to begin early, because the faculty of imitation is strong in young children, and in this way may be turned to account. Another reason for commencing early may be had in the fact, that then the muscles are more pliable, and the power of managing them more easily acquired.'

[4] Report of the Commissioners of National Education, Ireland.

Mr. Sheridan.

a word or two on a black board, or on the top of the slates, and then send the children to the desks to copy what is thus placed before them as best they may, while the teachers themselves are employed in attending to other duties. Thus,' he adds, 'their rude efforts being seldom guided by the teachers, the exercise, so far from being beneficial, is positively injurious.'

Mr. Blandford.

Mr. Blandford[1] agrees with this statement, and adds, that 'proper attention is not paid to the way the pencil is held when the children are in the lower classes.'

Mr. Fussell.

Mr. Fussell remarks,[2] that 'much, if not most of the fault which is justly to be found with the penmanship of the children in our schools, is chargeable to the very slight attention which the writing receives while they are young. They are employed with bad slates, and the shortest morsels of pencil, to keep them quiet, and out of mischief, rather than from any other motive, and their work is scanned with more regard to its quantity than its quality.'

Junior classes to use pencilled copybooks.

In addition to what I have already suggested in the way of supervision, and imitation of head line, I may remark, that it is sometimes a good plan to pencil the copybooks for the worst, so that they may be required merely to trace the lines. They have then to attend chiefly to the way in which the pen ought to be held, while, at the same time, they will be acquiring the ability to slope and form the letters properly. By attention to one thing at a time, the difficulties will be more easily overcome.

Pencilling to be *gradually* dropped.

These pencil marks should be gradually dropped. After some time, for instance, a leaf may be written in pencil on all the lines except the last; the next leaf may have two blank lines, the next three, and so on, until no line is pencilled. There is certainly a good deal of trouble in this, but it may be shared by the master with the most advanced boys, and with monitors; or copybooks may be used, which, like those published by Mr. Foster, have the letters and guiding lines printed in lead-coloured ink. The expense is not much, while the saving of time is a great deal.

---

[1] *Min.* of Council, 1856-7, p. 372.

[2] Ibid. 1860–1, p. 19.

Locke advocates this plan.

Locke, the eminent philosopher, advocates this system for teaching writing. His words are, 'The way to teach a boy to write without much trouble, is to get a plate graved with the characters of such a hand as you like best. But you must remember to have them a pretty deal bigger than he should ordinarily write; for every one naturally comes by degrees to write a less hand than he at first was taught, but never a bigger. Such a plate being graved, let several sheets be printed off with red ink, which he has nothing to do but go over with a good pen filled with black ink, which will quickly bring his hand to the formation of those characters, *being at first shown where to begin, and how to form every letter.*'

To be used only with beginners and a few others. Lines required for each stage of progress.

This is only to be adopted with beginners, and with the most hopeless of the others. My impression is, that the first copybooks should contain *horizontal parallel lines*, of the exact height of the letters (between which the pupils must write, and both of which the letters must touch), and *slanting lines* to guide him in the slope. The next copies should not contain the *slanting* lines; the next should lose the upper one of the *horizontal parallels*, and the final ones should be perfectly plain, like a sheet of note paper. But few children can write a letter straight, owing to the sole use of ruled paper in schools.

Plain paper to be used in the end.

Rule 11. DO NOT BEGIN WITH LARGE HAND.

RULE 11.—*Although it is necessary to begin early, do not begin with 'large hand.'*

Large hand practically useless.

Why taught.

Large hand, so far as the ordinary purposes of writing are concerned, is worthless. Those who teach it, do so from thinking that its early and extensive practice secures a freedom and boldness of hand not otherwise attainable. Or else they practise it,—and this is the true reason that influences most of them,—because it is the custom to do so.

Not necessary for this.

In my experience, however, I have found the best writing—the boldest and freest—in schools where this kind of hand was not practised at all.

Mr. M'Creedy.

Mr. M'Creedy's experience is the same. He says of one school in particular, where 'large hand' is the last instead of the first exercise in penmanship, that the writing, which is the result of this system, 'is extremely beautiful in style, and characterised by much ease and freedom.'

Not practised in my district at all.

No large hand has been practised in this district for the last few years, and the result is that the writing has not only improved, but that classes now can write small hand, and practically apply it to the acquisition of general knowledge, that were merely struggling with the difficulties of the large text before.

Those who write 'large hand' only can employ penmanship for no good purpose whatever. It is, therefore, no small argument in favour of a system to prove, by an appeal to actual results, that it is capable of making the progress in writing practically valuable at a very early period.

Mr. Moseley.

Mr. Moseley, in his Report for 1845, also notices this matter. He says, 'In the hope of making children fine writers, for the accomplishment of which a practice of large hand is *assumed* to be necessary, they are deprived for a considerable time of the practice of the art of writing under that form in which alone it will ever be of any use to them.'

Mr. M'Creedy.

Mr. M'Creedy says that, 'in not a few of the best works on education, especially among the French, the practice of commencing with "large hand," or of teaching it at all, is disapproved of for *consuming the time of the pupils to little purpose.*' And when we consider how very short a time even the most favourably circumstanced of our children are able to remain in school, we must see how very wrong it is to practise any system that consumes so much as one day of the school-going period in doing what will not tend to their immediate practical advantage.

Large hand unfitted to the fingers of little children.

Large hand appears, when viewed by common sense principles, to be very ill-adapted indeed to the small fingers of young children, and to require more firmness of stroke than can be naturally expected from them.

Pupils should imitate from the first what they intend to practise.

My impression is, that children should, *as a general rule*, begin to imitate letters of the size, slope, &c., that they intend afterwards to make use of; and that by constantly following such a course they will attain the highest degree of excellence in the shortest time; the true principle of success consisting, as I take it, in the excellence of the model and the faithfulness with which it is copied. But, however, as the tendency is, especially in young children, to write smaller than what they ought, and also a little closer, the models may judiciously be varied to meet these cases. That is, for the junior classes the head lines may approach what is called 'half text,' and the letters may be written rather loose than close.

Character of the style to be aimed at.

In the middle division of the school, the small hand should also be bold and free, and rather above the ordinary size, but in the next classes it should approach in character to a good commercial hand—not too round, nor too angular, but a mean between both, something like the old Italian hand. Sharp angular writing is bad, except when specially adopted, as already suggested, to cure faults, or correct the natural tendency of young children to stiffness of execution, and should be dispensed with even in girls' schools, in which it is now so common and so fashionable.

Round hand generally recommended.

What is called 'round hand' is most generally recommended,[1] though I find that a perfectly round hand is very difficult of acquisition by mere learners. They acquire such a hand as I have described with much more ease.

---

[1] Mr. Wilkinson says, Min. of Council, 1864–5, p. 728,

In all cases, however, the writing must be quite devoid of flourishes, but yet not disfigured by stiffness: it should be plain and regular, but not precise; but, above all other qualities, it must possess the three grand desiderata of being *legible*, *easy of acquisition*, and *capable of being rapidly used.*

Three essential elements of all good writing:—
1. Legible.
2. Easy of acquisition.
3. Rapidity of use.

Rapidity essential.

The power to write readily or rapidly is a most important element in teaching this branch successfully, but there appear to be no special means adopted in ordinary schools to secure it.

It is by all means essentially necessary to acquire what is called a *good schoolboy's hand*, as this is the sole foundation of a *good current practical hand*, but it is very wrong to stop, as most do, when that point has been reached. Quickness of penmanship is required by the necessities of nearly all kinds of business, and must be acquired in school in order to make the education complete.

How to secure it.
1. Writing words together.

For this purpose the pupils may be practised in writing words, and even sentences, together, without lifting the pen, the speed being determined by the proficiency of each child. The writing may be pretty slow at first (quicker, however, than in the ordinary imitation of a model), and may then be made gradually more rapid up to whatever point is considered requisite.

2. Extract from books.

They must also make copious extracts from books. I have, in the preceding pages, recommended this

---

'I still adhere to the opinion, that a fair, round, symmetrical hand, is the best adapted for the schools of the poor; and pains in teaching that well would be better bestowed than in forming the fashionable angular writing now taught to girls at some of the schools.'

Mr. Currie, in his work on 'Common School Education,' strongly advocates 'round hand,' as being the most legible, the most easily acquired, and the most readily practised. —*See p. 375, &c.*

exercise for teaching spelling. It will serve, however, the double purpose of teaching spelling and giving freedom of writing; but it must be carried out differently according to whichever of the objects is the chief one aimed at. If it is correctness of spelling, the copying must be done slowly and deliberately, and may be done by all classes who can write; but if it is quickness that is aimed at, it must be done within a certain limited time—longer or shorter, according to the ability of those who do it; and it must be attempted only by those whose style of writing is to some extent already formed. For if a pupil be allowed to remain at the exercise as long as he wishes no quickness will result, and if he be made to write quickly before he has acquired a certain amount of skill, he will decidedly become a scribbler.

To be carried out differently to teach spelling.

The best writers should commence by copying from a book on *one* day only of the week (writing from a model on the others). As they progress they may do so on *two* days, then on *three* days, then on *four* days, and so on, until they cease altogether to write from a model.

Must be gradually adopted.

When they have practised for some weeks to write solely from print, they should gradually cease the ordinary writing exercise altogether, for I think, when they have arrived at this point of excellence, their time will be much more profitably spent in acquiring a knowledge of something else. This can be done with most advantage in those schools in which *composition*, *dictation*, &c., are carefully and correctly taught, and where reading and writing, as they ought, are made to mutually assist each other.

Gradually drop the writing altogether.

When the pupils have learned small hand well, they should be introduced to *ornamental penmanship*, if they have time, and if the teacher is capable of giving lessons upon it; and, in connection with this, they should learn 'large hand.'

Ornamental penmanship and large hand.

I thus recommend that 'large hand' should close, instead of begin, the lessons on penmanship, and I am firmly convinced that it is in that position only that learning it will prove of real benefit to the child.

Rule 12. DO NOT WRITE MUCH AT ONE TIME.

RULE 12.—*Do not let the children write much at one time.*

If they are allowed to do so they may quite undo by carelessness at the end what pains and neatness secured for them at the commencement. One leaf of a small copybook is quite sufficient, and this will occupy, as said before, about twenty minutes. In many schools children are allowed to write for hours. This is a remnant of the old 'hedge' or 'venture' schools, in which the pupils either wrote or counted all day. Some parents, who imagine that writing much produces good writing (instead of weariness and scribbling), require this, and many teachers, even though convinced of the contrary, admit the practice in order to please them. But I look upon this conduct as an undue concession to prejudice. Every reasonable request of a parent should be willingly and obligingly granted, but when he oversteps his own special province, and dictates to masters, managers, and inspectors the way in which certain duties ought to be done, he must be firmly but mildly repulsed. Such interference, if tolerated, would be prejudicial to all, and to his own children more than any.

Parents insist often upon writing much.

Teachers must refuse them.

Rule 13. WRITE BY DIVISIONS.

RULE 13.—*The duties of the school should be so arranged that the pupils may write by divisions.*

It is found to be very disadvantageous to permit all to write at the same time. One portion of the school should always be on the floor, and the other in the desks, so that the teaching power may be sufficiently economised.

Suppose there are five classes in a school; the two highest may write together, and the two lowest, leaving the middle division to write by itself. Or the very lowest class, the mere beginners, may write alone, as requiring more assistance and many special attentions, while the other four classes are divided into two. Each teacher, however, must group his classes as seems best for himself, being guided in this matter by the circumstances peculiar to his own school.

Application of writing.

It but now remains for me to add a few words in conclusion upon the practical uses of writing in the school course, and chiefly with regard to writing from memory, as the other applications of it, dictation and composition, are treated of in different places.

Objects of writing from memory.

When writing from memory is practised the purpose is to fix the words more permanently in the mind, and to show in what way the task has been got off. If we commit a piece of prose or verse to memory we shall be less likely to forget it if we also write it down; and if we commit it from the oral repetition of another we will be much more likely to be correct if we write it and submit it to him for perusal.

Children are very prone to repeat mere sounds, and to pass them off for words, and this they can do with such skill, that nothing but a written test is sufficient to detect the counterfeit.

Mr. Middleton's examples of its value.

Mr. Middleton says on this point:[1] 'In many of the numerous schools where I have tried it for the first time I have got an infinity of errors. The following will serve as examples:—"Thy will be done on earth as *teus* in heaven;" "Lead us not *in tutim tation*"=into temptation; "*and past* your gun" =in pastures green; "Nor sitteth in *his corner chair*" =the scorner's chair; "but placeth his *daylight*"= delight; "Nor let my *hoop* be lost,"=hope; "for *though* art with me *on the road*, and *staft my* comfort *still*"=thou, and, thy, rod, staff, me; God is a spirit *finit, internal*"=infinite, eternal, &c.'

This betrays not only bad spelling, but great ignorance, and nothing but such an exercise can thoroughly test the extent of the errors. It is one, therefore, that all teachers should employ whenever occasion permits.

---

[1] Min. of Council, 1861-2, p. 222.

Mr. Kennedy.

Mr. Kennedy says,[1] 'I recommend that the exercise called dictation should more commonly be written from *memory*, than be taken down from the master's reading. It would be a good thing for children to learn at night some passage to be used thus in the next day's dictation exercise.'

In fact, when the object of the exercise is known, every intelligent teacher will be able to suggest means to vary it for himself.

[1] Min. of Council, 1849–50, p. 179.

CHAPTER V.

ARITHMETIC.

Counting.

Two kinds of, 'correct' and 'intelligent.'

COUNTING is generally the first thing to which the children are introduced. This may be divided into two kinds, *correct* and *intelligent*. To count correctly is to say *one*, *two*, *three*, *four*, &c., and requires simply an acquaintance with the names of the figures and with the order in which they should be repeated; to count intelligently requires in addition a true appreciation of the numerical difference of each group.

Correct counting is not an arithmetical operation.

Correct counting is not an arithmetical performance. It is a mere verbal exercise; nothing of number enters into it but the names. A child may repeat the names of the figures from one to a thousand, and yet perceive as little reference to different groups of objects as he perceives, and as actually exists, when he repeats the letters of the alphabet.

It is merely an introduction to intelligent counting.

Correct counting is, however, an introduction to arithmetical or intelligent counting, and is, so far, indispensable; but the teachers should not forget that in itself it is of very little arithmetical value—that, in fact, it is but a means to secure a desired end. I am particular in mentioning this, as it is the only proficiency in *counting* required by the majority of teachers from the children of their junior classes.

Intelligent counting.

A child, however, must be taught not only to count 'correctly,' but to know that each name which he repeats represents a number of *ones*, or *units*, and that each group differs from the next to it by *one*, and *only*

By the ball-frame, &c.

one—that *nine*, for instance, is *one* more than *eight*, and *one* less than *ten*, and *only one*. This is taught by means of the *ball-frame*. One ball is brought over on the first line, two on the next, three on the next, &c., and as they are brought over the master and children repeat together the number of balls. This frame should form a portion of the apparatus in every school. When it has not been procured, books, marbles, pens, in fact, any familiar objects easily grouped will answer the purpose; even the pupils themselves in default of all else may be arranged into the groups represented by the different names, and be thus used in place of a ball-frame.

Instead of saying one, two, three, &c., they might judiciously be made at first to say one *ball*, two *balls*, three *balls*, &c. They will thus soon come to see that the names are the names of groups, which differ from each other by a certain quantity.

Tests of proficiency in counting intelligently

When pupils can repeat the names of the figures, and, in addition, answer such questions as the following, they may be said to count intelligently:—

If I have 6 marbles, and get 1, how many shall I have?
„ „ 5 „ lose 1, „ „ „ ?
„ „ 7 „ get 1, „ „ „ ? &c.

Each consisting of the addition or subtraction of *unity*. Those involving the addition or subtraction of two or more units are not proper questions, as the object in view is solely to determine whether the pupils know the precise difference between the groups which are in *immediate* connection with one another.

Intelligent counting embraces two arithmetical laws.

Intelligent counting may be said also to embrace a knowledge of the two arithmetical laws deducible from the mere names of the figures.

(1.) Exemplified

The first law is exemplified in the *teens* or *tens*, in *thirteen*, *fourteen*, *fifteen*, &c.; and the second in the figures that end in *ty*, as *twenty*, *thirty*, *forty*, &c. The first names are corruptions of the compounds *three-ten*, *four-ten*, *five-ten*, &c., and these again are contractions of the expressions three *and* ten, four *and* ten, five *and* ten. The second are corruptions of *two-tens*, *three-tens*, *four-tens*, &c., and these are contractions of the expressions 'two tens *added together*,' 'three tens *added together*,' 'four tens *added together*,' &c.; and both are instances of that peculiar species of addition in which one word registers the answer, and indicates the addends employed. When a child says *eighteen*, or *twenty*, for instance, he ought to learn from the mere word (1) that the group it represents is formed by the union of two others, and (2) that these others are indicated by the names eight and ten, or, in the case of the word twenty, by ten and ten (two tens).

in the *teens* or *tens*.

(2.) In such words as twenty, thirty, &c.

These a peculiar species of addition.

When properly taught these laws, the pupils should be able to answer questions like the following:—

Test questions on these laws.

Of what is seventeen formed?
" " sixteen "
" " thirteen "

How many are two tens?
" " two tens and three?
" " four tens and nine?
" " ten tens and ten? &c.

And occasionally the pupils should be required to actually form the different groups out of some convenient objects.

The laws admit of easy application in this way, and the skill and intelligence required are quite within the powers of young children. They should, therefore, never be neglected, especially as when judiciously taught they develope the mind, and prove to the children that arithmetic is something more than mere mechanical drudgery.

They are of easy application.

It is very easy to employ them in forming a system

Easy to add

by them, and to see that our system is *ten-group*.

of mental addition, and, by a reference to the fact which they so frequently bring before the children—that *ten* enters into the composition of all numbers beyond itself—it is easy to explain to all children the *ten-group* or *decimal* character of our system.

***Notation* and *numeration*.**

Pupils must now be enabled to *read* and *represent numerically by the recognised symbols* what they have learned to repeat. In other words, they must begin the study of *numeration* and *notation*.

Most important rules.

These are two of the most important rules in arithmetic. Unless they are fully understood it is quite impossible that there can be any true or rational knowledge of the powers of the numbers made use of in any calculation. When they are good all else is good, and when they are bad the entire subject is bad also. In fact, it may be said that intelligent and successful answering upon arithmetic is in exact accordance with an intelligent and a successful comprehension of these elementary rules.

Very few schools in which they are taught carefully.

And yet I regret exceedingly to say that there are few schools in which they are taught carefully or skilfully. This statement is borne out by the combined testimony of all the inspectors in Great Britain and Ireland. If there is any point upon which there is a perfect agreement among these gentlemen, it is this.[1]

This arises from the system of *unit-ing*.

The system generally practised for teaching these rules is the cause of the great ignorance which the pupils exhibit. It may be called the system of *unit-ing*, by which each figure gets a name, independent

Explained.

of, and longer than its predecessor. By it such a number as *fifty millions*, *sixty thousand*, *and five*, instead of being grouped in the child's mind as 50, 060, and 005, must be decomposed into the following:—

---

[1] See all the Reports of the Commissioners of National Education, Ireland, and the following in England:—Min. of Council, 1845-6, vol. ii. p. 188; 1846-7, vol. i. p. 134; vol. ii. p. 93; 1847-8, vol. ii. p. 190; 1856-7, pp. 467 and 631; 1857-8, p. 585; 1859-60, pp. 30 and 193; 1860-1, pp. 170 and 188; 1861-2, pp. 114 and 130; and also Education Commissioners, 1861, vol. i. p. 259, vol. ii. p. 558.

5 units
0 tens
0 hundreds
0 units of thousands
6 tens of thousands
0 hundreds of thousands
0 units of millions
5 tens of millions.

And how very few children can see that all this is equivalent to the simple expression above! It cannot, therefore, be a matter of surprise that the junior classes are unable to make use of it at all, and that the senior classes practise it with extreme slowness and difficulty.

It is impracticable in a large school.

But there is even a stronger objection against it, that of being impracticable in a large school. Suppose, for instance, that thirty children are assembled for a half-hour's lesson, and that they are told to put down *four hundred billions, fifty millions, sixty thousand and five.* Now, leaving out of the question the blunders they make and rectify before they are correct, let us suppose that the slates are ready for inspection. Before the master can decide upon the accuracy or inaccuracy in any one case, he must repeat the whole of the following:—

5 units
0 tens
0 hundreds
0 units of thousands
6 tens of thousands
0 hundreds of thousands
0 units of millions
5 tens of millions
0 hundreds of millions

0 units of billions
0 tens of billions
4 hundreds of billions.

And, to test the accuracy of the whole class, he must go over all this no less than thirty times. When, therefore, we consider the errors which, as a matter of course, he will meet with, and the instructions he will, as a consequence, be called upon to give, we can have no hesitation in saying that he will be unable to go over all within the half-hour.

These rules, therefore, not in reality taught.

Notation and numeration are, therefore, omitted from the school teaching, for this omission is imperative by the system of instruction adopted.

***Unit-ing*, though a bad *system* of numeration, is not at all a system of *notation*.**

It must, however, be acknowledged that it *is* a system of *numeration*, though so bad as to be worthless, but it is not at all a system of *notation* in the true sense of the word; for, if a child taught thus is required to put down *fifty-six thousand, three hundred, and eight*, for instance, he is obliged, from having no primary guide, to make the best guess he can at it; and this may probably be :—

56,300,8.

He then begins to 'unit' or 'numerate' it, and says :—

8 units
0 tens
0 hundreds
3 units of thousands.

Finding thus that the three is in the wrong place, he blots out a cipher, and begins again :—

8 units
0 tens
3 hundreds, &c. &c.

And so he continues blotting out the figures, and repeating the above rhyme, until the whole is *right*.

Is there any wonder, then, that there should be ignorant pupils and despairing teachers!

Many at *Practice* fail in *notation*.

I have met with frequent cases in which pupils who were able to do Practice were quite unable to subtract two numbers of seven or eight figures when dictated to them, and with other cases where, though right, they exhibited more doubtfulness and slowness than they would evince in the solution of a difficult question in the higher commercial rules.

Teachers say that the failure is caused by nervousness, but this is not so.

Teachers cannot conceive the cause of these failures, and are too prone to attribute them to that nervousness and diffidence which most children feel when under examination, forgetting altogether that the same nervousness, were it really in existence, would produce bad answering with more certainty on the higher and more difficult rules.

Real cause.

The real cause is to be found in the teacher's own neglect, consequent upon the laborious and impracticable systems adopted.

Teachers do not like these rules, and the children often refuse to learn them.

Most of them would rather teach any rules than these, and some of them pretend to look upon them as entirely beneath their notice. The children, also, taking their cue from the masters, refuse very frequently even to learn what is thus so much despised. It is scarcely necessary to say, that if they were thoroughly known they would indeed be beneath the notice of the teachers and advanced classes; but when not known, the more rudimentary they are the greater must be the shame attached to all who are ignorant of them. It will always be found, however, that those who despise these rules on account of their simplicity are merely seeking a cloak for inefficiency.

The true system is simple.

The true system of teaching numeration and notation is very simple.

Division of numbers in reference to it.

All numbers may be supposed to be divided for the purpose of these rules into the following heads:—

(1) Those expressed by *one* digit.
(2) „ „ „ *two* „
(3) „ „ „ *three* „
(4) „ „ „ *six* „
(5) „ „ „ *nine* „ &c.

A new division being formed of every *three* succeeding digits, as twelve, fifteen, &c.

Each must form but one lesson.

And each of these groups should form but one lesson. Thus, the first lesson will be up to *nine* inclusive; the second to *ninety-nine*; not to twenty, thirty, forty, &c., as most teachers limit it, but up to the termination of the two-digit group of figures. I do not mean by *one lesson*, one period of half an hour or an hour, &c., but simply that all in the two-digit group should be indiscriminately treated of, that is, that the child may be shown how to put down 36, and then he may be called upon to put down 94, or any other number of the same formation. The third lesson will embrace all figures from 99 to 1,000 exclusive, and so on with the others. Or, in other words, the first *period* of figures must be taught by *places*, whereas each of the others must be taught as a whole.

Not necessary to describe the first three in this book, as they are now fairly taught.

It is not necessary to describe minutely in this work the steps by which numbers expressed by three figures—the numbers which constitute the first three lessons—should be taught, as in the majority of schools the pupils write such numbers down very fairly. It is in the numbers beyond these that they fail, and it is, therefore, to these that I shall now chiefly refer.

The following hints may be required.

I beg to suggest, however, that the following exercises be added, in teaching the first three places, to those commonly met with.

(1.) (a). *Place* and *period*.

(1.) The pupils must know what a *place* is, and what a *period*; and they must be able to complete a period, or change the value of any number by using either ciphers or significant figures. For instance, if the figure 4 is given to them, they should make out

(b). *Complete periods.*

of it the complete period, 004, or out of 61 the period, 061. Or if a figure, as 3, be given to them, they may be called upon to state how they would make it stand for *thirty*, or *three hundred*; or, if 400 be put down, how they would make it stand for forty, or for four.

(c). Add ciphers, and not alter the value.

Again, they may be called upon to affix ciphers to any figure without altering its value, or to remove any figure from the first to the second or third place, by ciphers or such significant figures as they may select themselves, stating in each case what the total result is.

(2., State orally the figures in a number.

(2.) They must also be required to state *orally* what figures are used to represent any number. If, for instance, *three hundred and twenty-one* be selected, they should say at once 3, 2, and 1; if *four hundred and five*, they should say 4, 0, and 5, &c.

(3.) Reduce numbers to the component parts,

(3.) And again, they must be able to reduce numbers to their component parts, as, 526 to 500, 20, and 6, and reform them by the processes of simple addition.[1]

---

[1] The following excellent remarks made by Mr. Currie, in his work on 'Common School Education,' will be of service to the teachers in helping them to explain this part of arithmetic. I take the liberty of extracting them:—

'*Numeration and Notation.*—When a class begins the study of formal arithmetic, its first effort is to learn numeration and notation, i.e. the system of reckoning which we employ in our calculations, and the manner in which we express numbers according to that system. These two topics cannot be confounded in the mind of the teacher without making his whole teaching of this subject confused both in its aim and its method. At the same time, they are closely connected with each other: so that they must be taught in mutual dependence.

'Numeration falls to be first explained: and it is with the number 10 that the necessity for explanation first occurs. Regarding the first nine numbers it need only be observed, that they should not be designated in the loose way in which they commonly are, as one, two, three, and so on, but systematically as one-unit, two-units, three-units, and so on. For the names one, two, three, &c., apply to the *various groups* of numbers that are afterwards to be formed, as tens, hundreds, &c. And the apparent exclusive appropriation of these

Further progress easy.

When they have thus thoroughly mastered the difficulties of expressing numbers of three places,

names to the units, which is implied in the elliptical way of designating them, is a great hindrance to the pupil's perception of the principle both of numeration and notation. When the class comes to the number 10, the teacher calls their attention to the fact, that it is considered as thrown into a parcel or group: the advantage of grouping can easily be illustrated from their own experience. The number is in fact not ten, but *a* ten, or *one*-ten; and it would be advisable to call it so. In proceeding beyond this number, the reckoning begins with the units again in their order, receiving them as added to the *one*-ten already grouped: so that the numbers in succession are *one*-ten and one, which the class is taught to call, for convenience' sake, *eleven*, *one*-ten and two, *one*-ten and three, &c., called respectively twelve, thirteen, &c.; until the reckoning comes in due course to the *two*-tens called twenty; after which the same process of gradual addition by units is resumed. Each step in the reckoning should be exhibited to the eye on the black-board. The grouping of ten-tens (when that is reached) into a new group called one-hundred, upon the same principle as that embodied in the grouping of ten units into one-ten, may form a limit to numeration for a time. So far, the teaching is entirely oral. If it be asked whether at this period the teacher should seek to make the pupils comprehend why the grouping proceeds by tens, the answer is that this is a matter which cannot be made intelligible to them: he may satisfy any desire they are likely themselves to form on the subject by connecting the *ten* with the ten fingers; but any investigation of different scales must stand over till a later period.

'*Notation.—Order of Steps.*—The notation of the numbers must next be explained: and here again it is with the number ten that the need of explanation is felt to arise. When the teacher comes to the number *one*-ten, he directs the attention of his class to the fact that it is *one* in some sort equally with the *one unit* already learnt; though a different kind of *one*, still of its kind it is *one*. Its notation must therefore be something which shall convey both its agreement with the one unit and its difference. The teacher may suppose different kinds of notation for it, all necessarily modifications of the symbol 1, as e.g. 1·, or a larger **1**, thus leading them to feel that the form of symbol which is adopted is not a matter of absolute necessity, but of convenience. So he tells them what that symbol is, viz. 10; leading them to observe that though the cipher is a new figure, it has no value in itself, and is therefore never used by itself, but that it is of great value as that by which we distinguish between the 1 that denotes a unit and the 1 that denotes a ten. When they are thus prepared, he enunciates the principle of the *notation to* them, that is, by the *relative position* of the figure and accurately and practically learned the value of what is called a *place* in arithmetic, and the use of

that its difference of value is denoted. In going on to confirm that principle by other examples, he had better take the tens, or some of them, here: two-tens denoted by 20, three-tens by 30, and so on. These cases are purely analogous to that already taught: so much so, that, under judicious leading, the pupils could infer what the notation for them will be. Then the teacher comes back to the combination of tens and units. If it has been impressed that one-ten is denoted by the symbol 1 in the second place from the right, and the one-unit by the symbol 1 with nothing else to its right, the pupil will have little difficulty in apprehending how *one*-ten and *one*-unit together, or eleven, should be denoted by two symbols standing to each other in the relation indicated by the symbol 11: similarly one-ten and two-units or twelve should be handled, and other numbers in succession. The especial point for careful illustration at this point is to show that a simple juxtaposition of the symbol for ten with the symbol for one, viz. 101, would not denote eleven. For it is just at this point that the popular misconceptions of notation amongst children come in; and if they come in here, they are carried through the whole sequence of notation, and embarrass his entire future progress. The teacher cannot be too careful, therefore, to show them the cipher is only used to keep the figures in their proper relative position, and that, if the figures are in their proper position without its use, as in 11, 12, &c., there is neither need nor room for its introduction. If the symbols up to 20 are illustrated with sufficient clearness, the subsequent ones will cause no trouble.—That the pupil may have familiarity in using the symbols of the different numbers, he must not only have them explained to him, but be in the habit of observing and of making them. Exercises may be formed for this purpose, more or less varied, according to the teacher's ingenuity. Thus the class may write the symbols both successively and miscellaneously to dictation; or they may name the numbers of which the teacher points to the symbols on the board. They may be exercised upon finding particular pages in a book; which is the first application they have to make of their knowledge of notation apart from numerical operation. They may be asked to write down the symbols of numbers which the teacher exhibits on the ball-frame without naming; or to name these numbers orally; or to lay off on the frame the numbers of which the teacher gives either the name or the symbol: for they must learn to associate, not merely the name of the number with its symbol, but both with its value. And practice in reading the notation should be conjoined, at the teacher's discretion, with operations under the elementary rules; e.g., if the subject of a lesson is the numbers from 30 to 40, each of these numbers may be reached by a series of the *cipher*, they will have scarcely any further trouble.

combined operations with smaller numbers, then written on the board with its name and symbol distinctly enunciated, and the whole column revised when completed.

'The number 100 is the next critical point in the pupil's progress; and it should be treated with the same amplitude of illustration as the 10. First let the teacher impress the fact that it is a new group, one-hundred, made up of ten of the lower groups; then that its notation agrees with that of the two kinds of *one* already got in involving the same symbol 1, but that it differs from these in the *position* assigned to that symbol by the employment of two ciphers. Then let him compare the symbol for the one-hundred with the symbol for the number which comprises one of each of the three groups learnt, one-hundred, one-ten, one unit, 111, or any two of them, one-hundred and one-ten, 110, or one-hundred and one-unit, 101, till the pupil can thoroughly distinguish them. And then let him proceed carefully upward, making those comparisons, and applying those tests, which cannot but suggest themselves to one who reflects on what he is teaching. The numbers are larger and their symbols more complicated; but the pupil has the advantage of the previous training upon the tens to help him. At the same time, he need not now be occupied with this exclusively; but may go on with addition and subtraction whilst his knowledge of the notation is being extended. It is futile to attempt to exhaust this or any other rule at the time the pupil is first introduced to it. For the mere magnitude of the larger numbers, such as those involving tens and hundreds of thousands, is an obstacle to him, even when he perceives the principle of notation: his mind must be allowed time to grow into some familiarity with these numbers before he is expected to manipulate freely with them; and this growth cannot be forced.

'In the explanation of notation, it is very important that the *terms* should be used with precision and consistency; the pupil cannot form clear ideas, if he hears 'digit,' 'figure,' 'number,' 'place,' &c., employed arbitrarily and interchangeably.

'The following considerations sufficiently show the importance of dwelling with much patience and carefulness on this part of arithmetic:—(1.) "When a principle of numeration, or of considering a number as divided into the successive powers of the number adopted as the scale of notation, is once established, every operation becomes a precedent for another: the mode of operation on tens and units is a proof of that for operating on hundreds and tens, for the quantities involved are similarly related: they are, therefore, only instances, in fact, of the same operation, the addition of 220 *and* 130 or of 22 tens and 13 tens being obviously exactly *the same thing* as that of 22 apples and 13 apples, the tens

The next step, as I have already said, must be to teach them to express numbers represented by *six* figures. The first step being *one* figure, the second being *two*, the third being *three*, it would be natural to expect that the fourth step should be *four*, and in practice, by the system already spoken of, it actually is the case; but at the end of the three figures a new *period* begins, whose subdivisions—units, tens, hundreds—are exactly the same as those already learned, and therefore it would be absurd to treat them separately. They must be treated of as a whole.

Why the fourth division should consist of six instead of four.

But as the system which the teacher ought to adopt with the second period is just the same as that which he ought to adopt in teaching the third, fourth, and all higher periods—though the difficulty of the scholar will slightly increase, from the introduction of each of the new names, *millions*, *billions*, *trillions*,

My remarks need not follow these divisions.

in the one case, and the apples in the other, being merely the subjects on which the operation is performed. There may be different ways of expressing this; and, of course, it would require much both of simplification and expansion before it was introduced to children; but, directly or indirectly, something of the kind is absolutely necessary, or else all the processes of arithmetic are reduced to mere *counting*, and the learner is not able to form any conclusion respecting numbers exceeding those which he has actually reckoned up to." (2.) In operating on large numbers, whether by addition, multiplication, or the like, we can attain results only by operating on, or by, their parts consecutively. It is in virtue of the principle of numeration that we arrange the several partial results; and that we thus obtain the total result by carrying over units to tens, tens to hundreds, or *vice versâ*.—From both of these considerations it is manifest that all numerical operations whatsoever have their basis in the system of numeration which is assumed, and cannot be understood, even in the slightest degree, without a clear perception of the principle of that system. Wherever, therefore, arithmetic is taught with any pretensions to be a means of education, it must lay the foundation for these operations broad and deep in a full intelligence of that principle. And we have dwelt upon it thus emphatically with the view of removing the erroneous impression, that the discipline of arithmetic does not really commence till the pupil reaches the more advanced rules, and of showing that the character of all the subsequent teaching will depend upon the manner in which he is led to take his first steps in the subject.'

suggesting, in his case, natural limits to each lesson —my present remarks being directed to the teachers, and not to the scholars, ought not, and will not, follow the subdivisions of numbers already given.

I propose to show the true method of enabling those children who have already learned to hundreds properly to express *any* number, no matter how high.

Four steps. There are but four different steps to be attended to, none of which possesses any great difficulty.

Write on the *black board* any series of figures in proper order. When this is done—

(1.) (1.) Show the children the method of dividing these into *periods*, or groups of *three*, counting always from the *right* hand.

In this there will be no difficulty. The separation of each group may be effected by a comma, a hyphen, a tick, or, with very young children, the three figures in each may be united by a line above them, as $\overline{406}$, or they may be completely surrounded by a circle, as $\enclose{circle}{406}$. The great object being to accustom the pupils to regard each group as independently of the others as possible.

(2.) (2.) They must next learn to read these periods; that is, to read the numbers in each exactly as if written by themselves. Thus, suppose the number divided into periods on the black board stood thus—

640,307,081;

they must say, pointing to the first, *eighty-one*; to the second, *three hundred and seven*; and to the third, *six hundred and forty*; the name of each period being entirely omitted.

This is exceedingly easy, but it is exactly in this that defects are most frequently met with. They must, therefore, be exercised on it so frequently that they may do it correctly and without the smallest *hesitation*.

(3.) (3.) Then, but not till then, they must be taught the names by which the periods are distinguished from each other; and they must make use of these names when repeating the numbers in each. Thus, to the above numbers they must add *millions* after the six hundred and forty, *thousands* after the three hundred and seven, and *units* after the *eighty-one*; so that the whole will read six hundred and forty millions, three hundred and seven thousand, and eighty-one units.

They can next be taught to drop the word units—it being generally left out—but in each case when not expressed they ought to know that it is 'understood.'

Test questions.

A child so taught will be able to read any number, no matter by how many or how few figures it may be expressed. He will also be able to explain why there are but *three* places, while the *periods* are unlimited, and to answer with ease and intelligence questions like the following:—

What does 6 represent in the *third* place of the *first* period?

What does 4 represent in the *first* place of the *second* period?

What does 5 represent in the *second* place of the *third* period?

Why does 6 in the *first* place of the *second* period represent *units* of thousands?

What figures represent fifty thousand and forty, one million and ten, &c.?

Numeration and notation must be taught together.

What I have already said is made to refer chiefly to numeration, but it equally refers to notation also. The two rules must go hand in hand together, for they require the same explanations, they are founded on the same principles, and they mutually assist one another.

When able to read the figures up to *ten* exclusive, the child should also be able to represent them. When able to read to *one hundred*, he should be able also to express by their proper figures all the numbers he repeats; and generally, whatever combinations of figures he can accurately express, he should also as accurately reproduce.

Notation should follow a lesson on numeration.

Notation should always follow a lesson upon numeration, as it is but putting into practice the principles explained. If the one is thus brought as a sequence of the other it will test the child's comprehension of the master's explanations, it will give an opportunity for removing errors, and it will deepen all impressions of what is correct.

In putting down numbers, (1.) See that the periods are close.

In putting down numbers there are *three* things to be attended to; (1) the periods must not be too much separated, as 645, 307, 800; there must be the same distance exactly between them—between the 5 and the 3, the 7 and the 8—as between the other figures; (2) the commas, or other separating marks, must be made neatly; and (3) each period must be completed and marked off before the next is put down.

(2.) That the commas, &c. are not clumsy.

(3.) That each period is completed before the next is made.

Thus, if it were required to put down *fifty-four thousand six hundred*, the children should first put down merely the 54, and make a mark after it to indicate that that period is completed; and they should then attach to it the 600.

Children must fix the number in their understanding by periods.

It is of great advantage to fix the number in the child's mind in periods. It is something equivalent to the advantages arising from spelling large words by syllables. The difficulties, by being divided and separately dealt with, are lessened.

Termination of period to be indicated by a pause.

In dictating numbers the master should indicate the termination of each period by a slight pause. Thus, instead of saying uninterruptedly, put down twenty thousand and fifty, he should say put down twenty thousand (pause) and fifty. The pause defines the period, and should be represented by the comma. In this way the child soon comes to perceive the actual figures to be put down in each *period*, and learns that in putting down millions, billions, &c., he never has to put down at one time any number higher than *hundreds*, but merely to attend to the *place* in which he puts them.

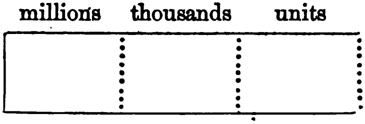
Mechanical way of learning notation

If these steps are faithfully carried out, the pupils will not find it difficult to learn notation and numeration fully, but there is a mechanical arrangement which may also be tried, as it possesses some advantages peculiar to itself, and which I have induced many teachers to adopt, and always with complete success.

described.

Direct the children to draw on their slates two parallel, horizontal lines, and to divide the space between them into neat compartments, capable of holding, at the least, three figures.

Direct them also to write above each compartment in proper order the words, units, thousands, millions, &c., so that the whole will stand thus:—



The separating lines being dotted for the purposes of reference afterwards. Then tell them to place in each compartment the exact number, as given out, belonging to itself.

Thus, suppose they were called upon to put down *forty millions three thousand four hundred*, this number should first be expressed on the black board as follows:—

40 *millions*
3 *thousand*
400 (*units*)

and then they should be required to put the 400 in the compartment already made for the units, the 3 and only the three in the compartment for the thousands, and the 40 in the remaining one; placing the numbers for the sake of convenience close to the dotted lines, thus:—

millions	thousands	units
40	3	400

They may then rub out these figures and try others, until they are quite perfect.

(2.) When they are, they must learn 'to fill up' each compartment. This consists *in putting as many ciphers to the left hand of what are already entered as will make the total number of figures in each exactly three.*[1]

In the above example no figure ought to be entered in the first compartment, but *two* must be entered in the second, and *one* in the third. The whole will then appear as follows, and the figures, if taken out and written in that order on the slate, will accurately represent the given number:

millions	thousands	units
040	003	400

(3.) When quite perfect in these two steps they should proceed to the next, which consists in the removal of the horizontal lines, leaving the perpendiculars, &c., to form divisions which are to be filled up in the same way, thus:—

millions	thousands	units

(4.) The next step is the removal of even these lines, putting in their place commas, thus:

millions thousands units

, , ,

---

[1] Of course it is not in reality necessary to complete the left hand compartment, but it is better to state the rule in general *terms,* as above, than to be confusing the children in their *earlier efforts* by pointing out to them what is exceptional.

(5.) And the last is to remove all guides, causing the children to supply the commas when each period is completed.

The periods are to be written, as before recommended, at proper distances from each other, and the ciphers to the left hand of the last period are to be dispensed with.

Pleases the children.

This mechanical method of teaching notation has the great advantage of interesting young children. They regard it as an amusing puzzle, and take pleasure in it accordingly.

Notation and numeration something more than mere putting down and reading numbers.

Teachers must not imagine, however, that when pupils are able to put down and read any number freely and accurately, that they, therefore, know numeration and notation properly. This is but a mechanical knowledge, and may, as has just been shown, be mechanically acquired. To know notation well they must not only be able to put down readily and correctly any number given out, but they must also know the exact *value* of each figure, and the *principles* upon which our system of numeration rests. In fact, we may divide the knowledge which children may possess about these rules, just as we have already divided their knowledge of *counting*, into *correct* and *intelligent*. They may know them 'correctly,' and they may know them 'intelligently,' the latter including the former, and adding to it a thorough acquaintance with the laws of number. Correct notation and numeration must be acquired first, the higher kind subsequently, but always.

Must begin with the alphabet.

Arithmetic should begin with the alphabet, and should be taught regularly till the close of the course, each class having a certain defined proficiency different from the others. Suppose that the children of a school are divided into six classes—the first (or lowest), the second, third, fourth, fifth, and sixth (corresponding in Ireland with the First Book, Second Book, *Sequel*, *Third*, Fourth, and Fifth); and that the *junior classes* are divided, the lowest into three

Proficier for eac class

drafts, the second into two, as ought to be the case; and the others not divided—we would then have the following classes and drafts:—

First	Alphabet draft	which we may designate as	1^1
	Spelling draft		1^2
	Advanced draft		1^3
Second	Junior draft		2^1
	Senior draft		2^2
Third	undivided	. . .	3
Fourth			4
Fifth			5
Sixth			6

And, in my opinion, the following is the proficiency which should be required from each, and which is easily attainable.

1^1 should be required to *count correctly*, that is, as has been already explained, to repeat the figures in their order. They should be proficients in this about the same time that they are proficients in the alphabet, the learning of one presenting about the same difficulty as the learning of the other, and both depending almost entirely upon memory, which in young children is peculiarly quick and vivid.

They must also know so much of *intelligent counting* as will enable them to connect the names with objects, and distinguish the groups in immediate connection with each other.

The most grown of them ought to learn to form the nine digits from a model set before them.

1^2 should be required to know all contained under the head of intelligent counting. They should be able to write down any number up to 10 when dictated to them, and to read it off.

1^3 should, in addition, be able to write down and read any number up to 100.

2^1 *must* be able to write down six places of figures, *and to* answer all the queries about places, and perform all the exercises already mentioned about completing periods, &c.

2^2 must be able to put down any number required with average correctness, and with a fair amount of intelligence, arranging them under each other readily for the purposes of addition, subtraction, &c.

3 (Sequel) must do all this with greater neatness and dispatch, and with more intelligence.

4 (Third Book) must show a superior amount of intelligence still.

5 (Fourth Book) must be acquainted with the different systems, as the English, French, Roman, &c., and be able to answer intelligent questions upon the laws of increase in places and periods in each system. To what extent they agree, and when they begin to differ, &c.

6, or highest class, must know all this, and be able to reduce a number from any one system into another —as from the *decimal* into the *quinary*, *binary*, &c., and to perform in any system the processes of addition, subtraction, &c.

These rules must be known practically.

In all classes notation must not only be well known up to the limit defined, but it must be practically known. That is, the pupils must be able not only to put down the figures correctly, but they must be able to arrange them properly—*quickly*, *correctly*, and *neatly*—under each other as required in simple addition, subtraction, &c.

Must be always used.

It must also be continually used. Many masters at present spend considerable time and trouble in making their pupils proficient in it, and then, as if its value began and ended in itself, they ever afterwards throw it aside. Instead, for instance, of giving out a number to the class, they dictate singly the figures which compose it. Thus, if the question were to subtract nine hundred and eight from three thousand four hundred and sixty, they would say, 'put down 3, 4, 6, 0, and under the 4 put down 9, next to it *put 0, and then 8*, and subtract.' Such a course is very wrong, for by it the time spent in acquiring notation, &c., is to a great extent wasted, and it creates in the minds of the children a tendency to omit all consideration of the value which the *situation* of the figures gives to them,—to look upon the 3, for instance (in the above question), simply as a 3, the 4 as a 4, &c., and to shut out the important fact that, in taking the 9 from the 14, they, in reality, are taking 900 from 1400.

Why so much space is given to these rules.

I have devoted considerable space to notation and numeration from being convinced, like the gentlemen already quoted, that to ignorance of them may be traced most of the failures in working arithmetical questions which are now generally met with, and that, therefore, any suggestions by which the study of them may be facilitated will not only give a better knowledge of the rules themselves, but will enable the pupils to work the higher branches of arithmetic more accurately and intelligently.

Figures must be neat.

In addition to what I have just stated, I wish to press upon teachers the necessity which exists for seeing that the figures are neatly and correctly made, though at the same time they are made quickly.

Neatness and quickness considered.

Some teachers allow their children to make very clumsy and ill-shaped figures simply from carelessness and indifference, but others do so from the notion that to make figures neatly consumes time unnecessarily. This, however, is a great mistake. The making of figures, like the making of letters, is a matter of habit and system. *If properly taught, neatness, accuracy, and quickness will always go together.*

Want of neatness, &c., a cause of error.

But even supposing that neatness of execution and arrangement did require some extra time, teachers must never forget that many a wrong answer is the result of hurry, untidiness, and of ill-formed figures, and that, therefore, the time which avoided those was well spent. When the *one* is like the *seven*, the [illegible]*ven like the nine*, the *cipher* like the *six*, or when [illegible]*e units* are under the *tens*, the *tens* under the hun-

dreds, &c., how is it possible to doubt the certainty of error?

Mr. Fleming recommends the making of figures on paper.

Mr. Fleming, Head Inspector of Irish National Schools, thinks this matter of sufficient importance to deserve a prominent part in his first general report. He suggests, and in its advantage I quite concur, that boys 'from Sequel upwards should transcribe, under the vigilant and direct superintendence of their teachers, and as a daily exercise, one or two sums into a book prepared for that purpose, and that the junior classes should write copies of figures from well-set models.'

Mr. Cook's opinion on the use of paper.

Mr. Fletcher's.

Mr. Cook says[1] that 'the use of paper conduces much to neatness and accuracy of the work;' and Mr. Fletcher,[2] while stating that the main advantage of using paper, that of neatness, may be obtained by means more universally applicable with less waste of time, yet admits that these means are not so universally in use as entirely to supply its place.

The moderate use of paper recommended.

It is too much the fashion to overlook, in the present system of conducting schools, the advantages arising from the use of paper in arithmetical operations, and it seems to be done from an over anxiety to differ as much as possible from the plans adopted by the 'venture' teachers whom we are now superseding; but though these men made the use of paper an evil from carrying it too far, the extreme into which we have fallen—of excluding it altogether—appears to be nearly as injurious.

There can be no doubt but that, when kept within due bounds, its introduction again will be of advantage, especially to those intended for mercantile pursuits.

May be used at home.

It may be used as recommended by Mr. Fleming, and it may be made judiciously one of the *home exercises*. The children should be required to work a few questions occasionally at home, and to bring them, neatly written out on paper, next day, for the master's revision and inspection. The master can make these questions tests of the rules already learned, or questions bearing upon the staple trades, &c., of the neighbourhood or of the parents of the children; or he can so word them as to test the intelligence by which rules will be selected, when the language itself gives no clue to show under which rule a question comes.

---

[1] Min. of Council, 1852–3, p. 322.

[2] *Ibid.* 1846–7, vol. ii. p. 98.

TABLES.

How pupils are to add single digits.

The next rule to notation and numeration is simple addition, but before entering upon it formally and by the use of slates the child must be able to make out mentally, and must remember, the sums of each pair of single digits *at the least*. How is this to be done? At present in many cases the pupils' knowledge of mental addition has been acquired by the laborious process of being continually told the results, and corrected when wrong; but in the majority of schools the pupils count their fingers, make strokes on the slates, or adopt some similar mechanical aids. The first is scarcely a system of teaching at all. It wastes a great deal of time, and fosters that sort of hap-hazard answering which leads to the acquisition, on the part of the children, of desultory habits of thought which are strongly calculated to retard their progress afterwards.

Two systems in use.

First scarcely a system at all.

Second system is mere *counting*.

Those who make use of the second course do not add at all in the best sense of that term; they merely *count*. If, before a child can tell what the sum of any two digits is—as, for instance, three and four—he is obliged to repeat 4 (5, 6, 7), reckoning at the same time his fingers or the strokes on his slate, he has gone so little beyond what is generally understood by counting, as distinguished from adding, that he may be said merely to count still. There is no mental *culture whatever*; the operation is so mechanical *that the mind* at last goes through it almost unconsciously; neither is there any arithmetical progress, but there is a great waste of time, for as the result is not registered for future use, the same steps must be taken over and over again whenever the same addends occur. In fact, the child in such a case knows only *how to obtain the result*, but he does not know, without calculation, *what that result is.*

Apply this system to the multiplication table and the rule of multiplication, and its absurdity appears at once.

Very baneful habit.

I scarcely know anything so difficult to be got rid of as the use of mechanical aids in adding, if once they have been practised for any length of time. In fact, so permanent are their pernicious effects that it is by no means unusual to meet with children, especially girls, able to work Practice, who are forced to adopt them in totting up a few figures.

The only true plan by addition table.

Specimen of.

The only true plan to teach *mental addition* is to be had in the judicious use of the *addition table.* This table, however, is so little known in schools at the present time, that it will be necessary to extract from it to show what it is, and to make myself fully understood. The following are the two first columns:—

2 and 1 are 3	3 and 1 are 4
2 ,, 2 ,, 4	3 ,, 2 ,, 5
2 ,, 3 ,, 5	3 ,, 3 ,, 6
2 ,, 4 ,, 6	3 ,, 4 ,, 7
2 ,, 5 ,, 7	3 ,, 5 ,, 8
2 ,, 6 ,, 8	3 ,, 6 ,, 9
2 ,, 7 ,, 9	3 ,, 7 ,, 10
2 ,, 8 ,, 10	3 ,, 8 ,, 11
2 ,, 9 ,, 11	3 ,, 9 ,, 12
2 ,, 10 ,, 12	3 ,, 10 ,, 13
[illegible] ,, 11 ,, 13	3 ,, 11 ,, 14
[illegible] 12 ,, 14	3 ,, 12 ,, 15

[illegible]ding column is formed similarly by the [illegible]gher digit to the numbers arranged [illegible] to 12. I am aware that, in strict- [illegible] like the table of multiplication, need [illegible]lve, but the frequent repetition of the numbers and results, especially as they occur in an inverted form, is practically a decided advantage.

Column of 1 left out.

The addition of unity to the twelve numbers is left out, for that is in reality *counting*, and is embraced under the head of intelligent counting, already treated of.

Method to teach this table in steps.

There are many methods of teaching this table, but I find, by a large experience of its working in this district, where it is solely and extensively used, that the following is the most expeditious and the best:—

1st step. Composition of table.

(1.) *Explain the composition of the table*, that is, explain the principle upon which the table is formed, or, in other words, *verify the results by an actual reference to objects.*

Why.

The earliest ideas of number which children possess are all *applicate.* It is only at a later period they acquire the power of abstracting number from the objects to which it belongs and considering it separately. All operations must, therefore, at the first be performed tangibly, must appeal to sensible objects, and be actually verified for the children. It is not sufficient to tell them that four and three are seven; they must be shown that four *books* and three *books* make seven *books*, or that four *balls* and three *balls* make seven *balls.*

How a class may serve the purposes of a ball-frame.

I have already recommended such an appeal to familiar things in the case of counting, and suggested the use of the *ball-frame*, or of books, slates, &c. Dr. Cumming gives the following to show in what way the mere arrangement and subdivision of the class can be made to instruct children upon the elementary operations. He says, 'The class consisted of twelve, and when they were arranged in full view of each other five were detached from the body, and the question put:—Take 5 from 12, and how many remain? The detaching of the other four led to questions about the sum of 5 and 4, and the remainder when 9 was taken from 12. Again, the class was divided into three equal sections, and the questions put, How many are one-third of 12?

How many are two-thirds, &c.? And thus an idea of the simple rules and even of fractions was imparted to a very young class of scholars.'[1]

Pupils should make out the table for themselves.

When the pupils understand what is meant by saying that 2 and 1 are 3, 4 and 5 are 9, &c., it is a very excellent plan to give them the ball-frame, and let them make out the results for themselves.[2]

Should compare figure, articles, &c., together.

It is also a good plan to bring the name of the figure, the figure itself, and the articles it represents in close connection, and always to appeal from one to the other until the children fully understand what is meant by each.

The pupils must be kept at this step until they fully comprehend what is expected from them, for it is only what is understood that ought to be committed to memory.

2nd step. Repetition of column in order from beginning.

(2.) *Get the child to repeat each column in a rhyme from beginning to end without stopping.*

Thus, I ask the child to *repeat*, for instance, the first column of the addition table. I do not ask questions on it, I do not say to him how much are two and one, two and two, &c., but I say to him *repeat the line*; this he does by beginning at 'two and one are three,' and ending at 'two and twelve are fourteen.'

The object of this step.

The first step was to explain the results, this is merely to record them in the memory. The repetition must be not only correct, but as rapid as is consistent with distinctness. This is mere rote work, for a child may repeat the columns fluently and correctly, and yet fail to tell the sum of any two numbers selected; but this repetition has its use, and is adapted to the low class which only is required to practise it.

---

[1] Min. of Council, 1851–2, p. 1,083.

See also Min. of Council, 1845-6, vol. ii. p. 222; 1846–7, v. ii. pp. 96 and 389; 1861–2, p. 176; Dunn's Principles of Teaching, pp. 90, 91; and Currie's Common School Education, p. 410.

[2] Cubes that can be handled by the children and arranged on the floor, are, perhaps, to be preferred to the ball-frame. *See M'Leod's* 'Standard I. of Arithmetic.'

3rd step. Partial repetition of columns.

(3.) *The child must begin the column at any number selected.* Thus, instead of a child's beginning at 3 and 1 are 4, and repeating to the end, he may be called upon to begin at 3 and 6, or 3 and 5, or 3 and 9, &c., repeating on of course as if he had commenced at 3 and 1.

Its object.

The great value of this is in the quickness with which he answers the sum of the first two numbers, and therefore if he answer it correctly and quickly, the repetition afterwards need not be very complete. Thus, if I ask the sum of 5 and 8, and the child replies at once 13, and then goes on 5 and 9 are 14, 5 and 10 are 15, it will be unnecessary to cause him to repeat more than two or three numbers, for the repetition is chiefly to show the child that it is to the table he must look for answers to such questions, and also to keep the columns fresh in his memory. In fact, it may be laid down as a general rule that, in every case where the child shows that he could repeat the column to the end if permitted, three numbers will be sufficient. When he has repeated as much of the column as the teacher thinks correct, another question should be given to another boy, but in carrying out this it is a waste of time to say to the first boy 'that will do,' and then to propose another question. The true plan is to propose the question, and the boy who is repeating will stop of himself.

Last step. A mere testing step.

The last step is that to which all the others are preparatory. *It consists in asking the sum of any two numbers throughout the whole table.*

Object of having so many steps.

This is the end aimed at, and the object in making so many distinct steps prior to it was to adapt each to the varying abilities of the children, so that even the youngest might find something within his power to do.

When pupils fail in giving the sum required, they should be called upon to repeat the column from the beginning until they arrive at it.

As this table is almost wholly a matter of memory, it is clear that the answers will be given quickly when the proper steps have been taken to make the children perfect, but many teachers consider that it is very unfair to expect promptness and readiness from young children; they are continually saying, 'give them time and they will tell,' 'do not hurry them,' 'they had not time,' &c., forgetting that children do not want time to tell the result if they actually know it. It is only when they are obliged to make up the result—that is, when they *count* instead of answering from the table—that time is necessary.

Quickness essential.

Objected to by some, but wrongly

These men are, however, not only wrong, but they are very inconsistent, for they themselves require their children to answer rapidly upon the table of multiplication, which is addition repeated several times, and therefore much more likely to be slow than the addition table itself.

and inconsistently.

When the table is fully known, it must be extended in order to make it available in the addition of large numbers. This is done by the following means. Take any two numbers, such as 9 and 6. When the child knows that their sum ends in 5, he should know from that that the sum of 19 and 6, 29 and 6, 39 and 6, 49 and 6, &c. end in 5. He will, therefore, be prepared to add these numbers readily. He will learn the method very quickly if a few examples are done on a black board before him, and by a little practice he will soon be able to add any numbers selected, no matter how large.

How to extend this table.

It is in the same way exactly as that which I have explained that the tables of multiplication, subtraction, and division should be taught; first the *explanation*, then the *repetition*, then the *skipping* through the columns, and finally the *test questions* and the *extension* to higher numbers.

The tables of subtraction, multiplication, and division are to be taught in the same way exactly.

Some may fancy that those who learn the tables of addition and multiplication will, as a matter of

Subtraction and division tables are

necessary.

course, be able also to subtract and divide, but my experience of schools has convinced me that this by no means follows. It is essentially necessary to commit the whole four tables to memory, that the desired results may be secured in the shortest time.

Multiplication table must be verified by actual addition.

With regard to the multiplication table great care should be taken to explain fully its composition. It is a matter of considerable importance that the child should perceive at an early stage of his progress that this table is but a concise form, in which the results of certain questions in addition are recorded. He should be able to verify these results by applying the principles of that rule. Thus, if I tell a child that nine times eight are seventy-two, he should be able to prove this statement; and if I say to him that eight times six are fifty, he should be able to show the error; or again, if I ask him to make out how much are twelve times nine, he should be able to do so, merely from knowing the principles upon which the table has been formed. Care must be taken, however, to see that the table is fully committed to memory, for, no matter how well a child may be able to verify its results, if he is not able to tell these results at once his progress can never be satisfactory.

Factoring to be taught.

As a deduction from this table, the child should be made familiar with what is called *factoring*, as it is of very frequent application in many of the arithmetical rules. He should be required to state orally the parts he would take for 36, for instance, or for 50, 24, 18, &c., and also how he would make use of these parts in multiplying or dividing. He should also be required to state orally how he would multiply by such numbers as 98, 39, 46, &c., which have no exact factors contained within the limits of the table.

Extended multiplication table.

This table is frequently extended so as to include multiplicands up to 20. This extension produces great quickness in working both multiplication and division, and enables a child often to solve mentally many questions which would otherwise require a slate. I think, therefore, that all advanced pupils should be induced to learn it. Mr. Fletcher says, in reference to it, that 'the children of the British schools while proceeding with the higher rules are learning the extended multiplication table to 20 times 20.' He adds that they learn this 'with constant reference to money; and also an extended money table up to 5,000 pence, and tables of squares and cubes of numbers up to 100.' He remarks that 'the capacity of rapid and, indeed, instantaneous calculation acquired by the quicker boys within the scope of these tables and rules was far beyond my ability to follow.'[1]

Advantage of, more than the trouble.

There may be some little trouble in committing each table to memory, just as there is trouble in committing to memory any tables whatever, but the quickness and accuracy which will arise will more than compensate for the additional labour.

Order of learning them important.

Bad order at present.

The order in which the arithmetical tables should be learned is almost of as much importance as the proper system of teaching them. The multiplication table has hitherto been taught first; this, however, could not well have been otherwise, as it was the only one connected with the four primary rules which was taught—the other three, addition, subtraction, and division, though equally necessary, being wholly omitted—and it has been taught as the very first lesson in arithmetic. Such a course is very wrong, for when a child is obliged to learn the multiplication table before or during the time he is struggling with the rule of addition, he is learning not only what is unnecessary at the time, and what he may forget before called upon to make use of, but he is omitting the very table which is calculated to smooth his way. He might just as rationally be obliged to learn the pence table, the table of time, or even the table of aliquot parts, all of which are useful in their proper place, but all unsuited, like the table of multiplication, to form an introduction to the first rule of arithmetic.

---

[1] Min. of Council, 1846–7, vol. ii. p. 97.

True order explained.

The sole use of the tables of addition, subtraction, multiplication and division, is to facilitate the working of the four elementary rules, and therefore each must be learned immediately before the rule to which it is to be applied.

The following appears to me to be the true plan :—

1. Teach the table of addition (in connection with counting, and the notation and numeration of small numbers).
2. Subtraction table and slate addition.
3. Multiplication table and slate subtraction.
4. Division table and slate multiplication.
5. Pence table and slate division.

The table of money, showing the relative values of farthings, pence, shillings, &c., should also be taught in connection with division, as a knowledge of it will be required when learning the next rule. The tables of time, weight, measure, &c., should be learned, for the same reason, immediately afterwards. The general principle may be thus stated :—

> *While learning one rule commit the table of the next, taking care, however, to begin the study of each table in sufficient time to allow of its being perfectly mastered before it is necessary to use it.*

The tables will thus be learned in their natural order, and, what is a matter of very great importance in rendering the results permanent, and enlisting the intelligence of the children in their committal to memory, they will be studied just before their practical application.

Rule may be introduced *practically from tables.*

I would not have it inferred from this that I am opposed to the introduction of a rule until the table belonging to it has been fully mastered. I wish merely to be understood as not recommending a regular, formal, and complete introduction until then, and as sketching out the natural connection existing between the tables and the rules, so that we may avoid the errors of mistiming them. So far, indeed, am I from opposing the introduction of a rule until the table belonging to it has been fully committed to memory, that I strongly recommend the practice of giving easy questions illustrative of the columns of each table already passed over. Thus, to a child who has learned the table of addition to the fourth column inclusive, such a question as the following may be given with very great advantage.

Test questions on slate.

Find the sum of 134565672 and
235434215

for such a question not only tests the child's knowledge of the table so far, but renders him much less likely to forget what he has learned, while at the same time, by showing him the practical use of the tables, it affords him a proper motive for study, and, as a consequence, he will study with greater willingness, and of course with greater success.

Questions of this kind can be set on the *black board*, and the children can be sent to make out the answers. This will form a valuable silent occupation for the desks.

Modification of general rule by nature of tables, &c.

The general rule sketched out above will in some instances require a modification suggested by the nature of the tables themselves, and by the character of the attendance of the children. The tables are divisible into two kinds; (1) those useful merely as aids, and (2) those containing information valuable in itself. Now as many children remain but a short time at school it will be necessary to deal exceptionally with them. They must be taught the tables required in ordinary marketing transactions—the number of stones, for instance, in a hundredweight, the number of pounds in a stone, quarts in a gallon, *&c. &c., even although* in acquiring this knowledge a deviation must be made from the system of teaching which I have just sketched out, and which, from its being founded on the present accepted arrangement of the Elementary Rules of Arithmetic, appears to be the most natural and orderly. I may remark, however, that such exceptional cases will be very rare indeed, as nearly all grown boys learn beyond the Compound Rules, and it is at this point they should, according to the system I recommend, know all the Table Book.

Exceptional cases very rare.

Apply the pence table practically.

In teaching the pence table it is an excellent plan to teach it practically, that is, to apply it occasionally to ordinary transactions. Thus, instead of asking them to say 6 times 8 are 48, 48 pence are 4 shillings, I might say, 'What is the price of 6 yards at 8*d.* per yard?' or, 'of 6 oz. of tea at 8*d.* per oz.?' or 'of 6 lbs. of sugar at 8*d.* per lb.?' or 'of 6 doz. apples at 8*d.* per dozen,' &c.

Advanced classes to know the notes to the tables.

The most advanced classes should be taught not only all the rules,—paying, however, most attention to those suited to the trades, &c. of the neighbourhood,—but they should be taught the interesting matter contained in the notes. They should be told, for instance, the use and the several peculiarities of each table. In the table of money, for example, they should know why £ stands for pounds sterling, why *s.* stands for shillings, and *d.* for pence, and for what the character / stands in such forms as 3/4, 2/6, &c.; why the guinea, the pound, &c. were so called, &c. In the tables of weight they should know the unit of measure in each, what use each is applied to, what are the points of agreement and disagreement between the weights called Troy and Apothecaries'. But for the other classes, and for the exceptional cases already alluded to, a good knowledge of what is practically useful will be found sufficient.

Tables to be written down before

It is an exceedingly good exercise to get the pupils *to write* down the tables, both before committing them *and afterwards*, as the memory is materially assisted and *after* committal.

by it. If the actual weights, measures, &c. were in the several schools, as I think they decidedly ought, the pupil should be required to make out the tables for himself, and then to compare his results with the table book. A foot rule, for instance, would of itself show him that there are 12 lines in an inch, and 12 inches in the foot. This applied to a yard stick, or to a measured yard on the wall of the school, or on one of the desks, would show him that there are 3 feet in a yard. This again applied to a perch, marked also in some convenient way, would show him that there are $5\frac{1}{2}$ yards in a perch, &c. This would be to most children but an agreeable amusement, and a table so learned would not only be better understood but it would scarcely ever be forgotten.[1]

Rules and weights should be in school, and pupils should construct tables from them.

Dean Dawes.

I refer the teachers to that capital little book by Dean Dawes,—'Suggestive Hints,'—for some valuable suggestions which will assist them in giving to their children true notions of *time*, *weight*, *length*, *capacity*, &c.

Tables must begin with letters.

Proficiency for each class

The tables, like notation and numeration, must be begun with the alphabet and continued regularly in each class in accordance with a graduated scale of proficiency, something like the following. The classes and drafts are the same as those already given.

1^1. Will verify the table of addition by *ball-frame*.

1^2. Will repeat the columns in order.

---

[1] See Common School Education, p. 402.

Mr. Jones, in his report for 1861–2, p. 124, Min. of Council, says: 'Whereas the adapting of arithmetical knowledge to the common practice of life is of essential importance in all schools, it would be a desirable thing, and one easy to effect, for every school to be furnished, as a *sine quâ non*, with a set of common weights and measures, a pair of large scales, a wooden bushel, quart, and pint, a two-foot rule for boys, a draper's yard measure for girls, a long stick measured off as the "rod, pole, or perch," a common rope with knots in it at six feet distance, to show that a sailor can stretch his arms out thus far, and so measure a fathom; these might certainly be bought for 20*s*., and would, in the hands of a judicious master, teach more practical arithmetic than "*Walkingham*" and all the "*Tutors*."'

1^3. Will know them well, and verify the subtraction table.

2^1. Will apply the addition table to high numbers and know subtraction table well.

2^2. Will know the multiplication, pence, and money tables.

3 (Sequel). Will know the most important tables.
4 (Third Book). „ all the tables pretty fairly.
5 (Fourth Book). „ „ well.
6 (Fifth Book). „ „ with notes, &c.

Higher than usual, but practicable.

This proficiency is rather higher than what is generally sought for, especially from the junior classes, but it is quite attainable, as has been proved by the actual working of the schools of this district for the last three years; and it is attainable without much extra labour: the great thing to ensure success is to begin with the lowest class and to carry the teaching on systematically and by graduated stages. Whatever extra labour there may be, need not necessarily fall upon the teacher, for, with regard to *tables*, *counting*, and, to some extent, notation and numeration, monitors, paid or unpaid, can be very judiciously employed, if the teacher will but only exercise over them an active supervision, and now and then examine minutely the progress of their classes. About five minutes after each reading lesson, or before each arithmetical lesson, will be quite sufficient to devote to these exercises.

Monitors may be used.

When to teach the tables.

Junior classes supposed incapable of learning these.

Many teachers, I know, will look upon the proficiency for the junior classes as much too high, for many are under the impression that young children can learn, and ought to be taught, nothing but their letters and perhaps a few easy sounds. This, however, is a serious error, and one which, as it has led to the comparative neglect of these classes, calls for immediate removal. A single *visit to* any well-conducted infant school will show *that it is* so. One never enters such an institution without realising the extraordinary quickness, and capacity for learning, exhibited by even the youngest. My impression is, that if teachers would aim at accomplishing more, if they would act zealously, continuously, and skilfully, they would find greater cause for admiration and hopefulness than for apprehension and despondency.

SIMPLE RULES.

Simple rules.

We come now to treat of the real work of arithmetic—of those elementary operations which are comprised under the four 'simple rules,' addition, subtraction, multiplication, and division. Of these the most fundamental is addition, and the true time to begin it, I mean to begin it formally and regularly, for a beginning should be made even earlier, in connection with the tables, as has been already explained, is when the addition table has been fully acquired, and when the pupils are able to apply it to the addition of higher numbers.

Addition.

Carrying explained.

Between this and slate addition there is but a single step—the process of 'carrying'—and it will be found exceedingly easy of comprehension by the majority of the children.

'Carrying' is nothing more than decomposing a number into its elementary parts, and putting each into a group of the same name as itself—units into the units' group, the tens into the tens' group, &c. Thus, in adding

$$\begin{array}{r} 50 \\ 99 \\ \underline{2} \end{array}$$

we say, '9 and 2 are 11,' and this number consists of 1 unit and 1 ten, the unit is put with its fellow units, and the ten is carried to the tens, making with 9 tens and 5 tens the total of 15 tens, which is another compound number, consisting of 5 tens and 1 hundred. These 5 tens are put with their fellow tens, just as the 1 unit was put with its fellow units, and the 1 of the new class, having none others to be joined with, is placed by itself. This depends upon the fact that numbers of different names cannot be added together; we cannot add three *cows* to six *horses*—a mere statement of such a question is sufficient to satisfy a child of the impossibility—neither can we add *tens* to *units*, nor *hundreds* to *tens.*

It is in this place that one of the advantages of decomposing numbers, as required in learning notation, will be seen.

Technical terms to be as little used as possible.

The children, at first, may be told *to put down the figure to the right hand and carry all the others*—the technical terms *units*, *tens*, &c., being omitted to prevent the possibility of a mistake in calculating. In fact, in all their early explanations the teachers should make as little use of technical terms as possible, and when treating of technical terms themselves they must try every sort of test to prove that the children fully understand them; unless they are particular in this, flippant answering may lead them into error, for it is astonishing with what accuracy young children will pick up such words, and how freely and correctly they will apply them, without in reality understanding anything of their true force.

Tests of proficiency in addition.

A child who knows the tables and their extension, as already explained, and who at the same time has acquired facility in 'carrying,' should be able to find the sum of any number of addends, but something more is necessary before he can be pronounced a proficient in the rule. He must not only add correctly, but he must avoid *improper methods*, *mechanical aids*, and *all unnecessary consumption of time.*

(1.) Improper methods.

Under the head of improper methods I allude chiefly to the impropriety of repeating the addends. Children generally repeat the sum of each two twice before proceeding to the next. Thus, in the example given below (p. 218), they say, 'one and two are *three*,' '*three* and nine are *twelve*,' '*twelve* and four are *sixteen*,' &c., instead of saying, 'one and two are *three*, and nine are *twelve*, and four are *sixteen*;' or, which is the most expeditious, and the plan least liable to error, instead of omitting all mention of the addends, as '*three*, *twelve*, *sixteen*.' Beginners may add the first way, those not very expert may add the second way, but all advanced children should add no way but the last. In fact, if unable to do so, they should be regarded as possessing a defective knowledge of the rule. If made to add aloud frequently in the master's hearing, they would easily acquire this method, and practice in it would soon give them the requisite degree of quickness.

Wrong to repeat the addends too often.

Ciphers should not be repeated at all. It sounds very harshly to say, for instance, that 'six and nought are six,' or that 'nought is a nought; put down nought;' and yet these expressions are very frequently met with.

Ciphers not to be repeated.

Again, the figures to be carried ought never to be put down on the slate. The practice is unseemly, and, on paper, it is inadmissible; besides, by not requiring of the mind to remember such figures, one means is thus lost of judiciously strengthening its powers.

Figures to be *carried* are not to be written on the slate.

Finally, the rows must be straight, both across and downwards. Children have a tendency to write slantingly and to blend the horizontal lines with one another. These defects can be remedied only by strict supervision and constant correction, and by beginning the culture of true habits from the very first.

Rows must be straight.

The mechanical aids referred to are not those of counting the fingers, making strokes, &c., which I have already condemned under the head of 'tables,' but are rather such aids to addition, as are given by marking off the tens, as they proceed up the column,

(2.) Mechanical aids.

instead of bearing them in mind until the end. Take, for instance, the following example:—

$$\begin{array}{r} 3\ 0\ 4 \\ 5\ 6\ 9- \\ -7\ 8-2 \\ 3\ 4\cdot 1 \\ \hline 19\ 9\ 6 \end{array}$$

The child says, 'one and two are three, and nine are twelve,' and then, instead of saying, 'twelve and four are sixteen,' he puts a mark at the nine, to represent the one ten contained in twelve, and carries the remaining two to the four, making six, which he puts down. He then adds to the *four* of the next column the number of marks thus made (representing tens), and in the addition of the second line he marks off as before. A child so taught never really adds beyond *eighteen* (nine and nine), and therefore the power that arithmetical calculation gives, and which is one of its great educational advantages, of sustaining a long train of thought, is thus entirely lost.

The result may be correct, but the mind is not improved by the exercise. Besides, as already objected to in the previous case, the practice is unseemly, and, in many cases, inadmissible.

(3.) Slowness.

Quickness and accuracy discussed.

With regard to *quickness*, the other essential of true proficiency, many teachers do not regard it as of much importance. They imagine that *accuracy* will justify any amount of slowness, even that which approaches in character to dullness. There are others, however, who think that correctness of results are not very material, except in a merchant's office or other place of business, provided only that the process is correct, and the execution rapid. Both these are in the extreme, the truth lying between. There must not be such an amount of haste as will necessarily produce error, nor yet so much slowness as will appear to border upon inexpertness. The teacher's duty is to secure, by every means he can, quickness, expertness, promptness of thought and action, but in doing this he must never sacrifice correctness.[1]

True mean by *desk* and *draft* teaching. Both necessary, and why.

The true mean is secured by the judicious mixture of *desk* and *draft teaching*. Desk teaching is necessary to give habits of self-reliance, and to test how much of the master's instructions has been practically valuable in each boy's case; but class teaching on the floor is necessary to secure quickness and vivacity. Pupils who work arithmetie solely from text books in the desks, and are allowed to linger as they like over each step, must inevitably become dull, listless, incoherent in thought, and unready in action. They require the healthy stimulus of the drafts, where the boys generously rival each other in quickness and correctness.

Hints to carry each out.

A few hints are necessary as to the proper methods for carrying each out.

Desk teaching. (1.) Child must not run up for help at each new difficulty.

(1.) As desk work is to secure self-reliance and that accuracy which is the result of a thoughtful study of each step, the child must be left as much as possible to his own unaided efforts. To encourage him, as many teachers do, to run up for assistance as each difficulty presents itself, not only, therefore, destroys all system and order, but defeats the object sought for.

---

[1] Mr. Wood says, 'Sessional School,' page 258, 'It is sometimes observed, that accuracy in calculation is infinitely more important than rapidity. This is a proposition which no one will call in question; and, therefore, if the two things were necessarily or naturally opposed to each other there can be no doubt which should be preferred. But if, on the other hand, the two are, under proper discipline, found to go hand in hand—if he who performs a calculation with ease and rapidity, performs it with no less accuracy than he who does so with difficulty and sluggishness—then surely it were well it were done quickly. All must undoubtedly admit that correctness is best to be attained by practice, and who is it that in his early years enjoys most the benefits of such practice? He who performs one calculation in an hour, or he who, perhaps, performs sixty of a similar kind in the same time?'

It will not do, however, to abandon the pupils in the desks entirely to themselves. The same sort of eye supervision recommended in the writing exercises, is necessary here also. They must feel that they cannot idle without being seen. The questions should also be retained on the slate for the master's or monitor's examination, and for a check as to number, &c. If this is not done the children will become lazy and inattentive.[1]

I strongly recommend, in connection with this, the occasional use of paper instead of slates. I do not mean that the question should be worked on slates first, and then transferred to paper, but that paper should be used from the outset. This will induce habits of thoughtfulness, and produce accuracy as a consequence. It will show whatever errors the children may happen to make in their first efforts; it will also afford the best check as to the quantity and quality of the work done, and, like all other written exercises, it may be made the means for cultivating habits of taste and neatness. It may be used at three or four lessons in the week, or more frequently if the teacher thinks proper.

(2.) In floor teaching the *primary* object in view requires that every legitimate means should be taken to rouse the boys to excel each other in quickness—to create among them a healthy rivalry in getting first place.

This is done in various ways. (1) One is to get

---

[1] Mr. Wood, the gentleman from whom I have just quoted, says, page 255, 'There is no department, indeed, in which either activity or indolence may be more strictly exemplified than in this. "The whining school-boy, creeping like a snail unwillingly to school," is but a very faint picture of sloth, when compared with the appearance which the same boy *sometimes* exhibits when nominally engaged at the desk with *figures. His* lounging attitude, his vacant and listless look, *will too* surely attest the utter inertness of his mind.'

Methods to create quickness.

(1.) the boys to put down their slates in the order in which they are done, on a chair or form in the centre of the class, and putting them on top of each other, and with the unfigured side uppermost. The master, when all are down, turns the slates and examines each; and he puts those boys who were right at the top of the class, in order, and those who were wrong at the foot. Quickness and accuracy are thus both rewarded, and therefore the plan is so far good; but the noise and confusion attendant on it render it quite impracticable in a large school.

(2.) There is a *second* plan. Direct the children to put their slates by their sides as soon as done, and at the same time to go above all whose slates are not down; and then desire all to show slates. You can now examine each, putting all to the foot who are wrong, and causing the others to take their places. This also rewards both quickness and accuracy combined, and as there is less noise attached to it, it is better than the other; but there is always more or less of confusion attending on it, for occasionally it will happen that two or three are done together, and make a rush to take the best place. On this account it also will be inadmissible, unless the teacher is a very good disciplinarian.

(3.) **This is recommended.**

The plan which I adopt myself in my examination of a school consists in merely desiring the pupils to put their slates rapidly by their sides the moment they arrive at any answer, whether correct or not, never allowing them to look over the work a second time to test its accuracy, but always taking special notice of the boy who is done first, or second, &c., and then at the order 'to show slates,' an order given when I think there has been time enough spent, those who have done turn the slates out, *and those who have not put their slates by their sides.* All who are wrong go foot, and all who did not finish go after them in order.

antages
o. 3.

This plan avoids all noise and confusion, while it rewards quickness and accuracy. The fear that they will not be done when the order to 'show slates' is given induces the children to work rapidly. It even produces greater quickness than either of the other plans, for the examiner can limit the time for each question to whatever period he considers correct.

order
be
ed.

ying
be
ented.

But it is necessary to attend to the following before the results will be quite satisfactory. *First: Each step in this plan must be carefully carried out.* I have seen many teachers who gave, for instance, the order to 'show slates,' and who, without waiting to see whether it was fully and properly obeyed, at once proceeded to examine. The result was that only some showed slates, while the others either worked on, or else copied what they saw. *Second: All copying must be strictly prohibited and stopped.* This habit is probably more baneful than any other, as it screens the indolent, and entirely prevents progress in the majority of the class. It is, moreover, a species of petty dishonesty and deceit, and must tend to corrupt in the end the morals of the children. I find that it is especially practised in girls' schools, in which, indeed, its evil effects are the most to be deplored. It must be put down, not by any mechanical means —such as putting the children back to back in pairs, or giving different questions to each alternate boy— but by constant watchfulness, and by training the children to look upon copying in its true light, as not only a breach of discipline, but as a species of deception akin to cheating—a moral error of which no high-minded person would be guilty. It must also be remembered that this fault, like most others, begins in the junior classes, and therefore it is there especially that the master must repress with a firm hand every symptom of the evil. It is a fault exceedingly common, and strongly condemned by inspectors.[1]

---

[1] The following remarks of inspectors, upon 'copying,' may

Junior classes must be well attended to.

Third: Great attention must be given to class teaching in the junior division of the schools. As Mr. Sheridan says[1], 'I wish most earnestly I could impress upon teachers' minds the truth, that the seeds of expertness in calculation must be sown in the junior classes, and that, if proper culture be there neglected, no matter how plentifully the seeds may be scattered afterwards, the crop will be poor. It is in these, or not at all, that children acquire expertness, and a want of expertness is the most striking defect observable.' *Fourth: Begin with easy questions and repeat them frequently.* Unless the questions are easy, they will require too much thought, and will thus defeat the end in view, and when once solved, a repetition will produce an increase of rapidity,

Easy questions first, and repeat them often.

prove of advantage. Mr. Blandford (Min. of Council, 1847–8, vol. ii. p. 190) says, 'In examining upon arithmetic, it is painful to witness the deceit and falsehood practised by the children in their attempts to copy from each other. It is greatly to be regretted, that teachers do not take more pains to impress upon the minds of those committed to their care the necessity of truthfulness in small matters. It is most desirable for teachers in National Schools to endeavour, as far as they can, to induce habits of truth and honesty, that whilst they inculcate sound doctrine, they should take every opportunity of enforcing right practice, and of infusing a sound, healthy, moral tone throughout the school; and I know of no surer or more common-sense test of the existence of such a tone prevailing amongst the children, than when they abstain from copying the answers of the sums from one another.'

Mr. Warburton (Min. of Council, 1857, p. 471) says, 'This disposition to copy from each other is unhappily common, but it *may* be successfully combated by a master of judgment and determination, who is resolved to establish a high moral tone amongst his pupils.'

Mr. Brodie (Min. of Council, 1860–1, p. 188) says, 'There is a good deal of mutual whispering and copying, which, in some few schools, seems, indeed, to be quite normal, nor to be thought dishonourable.'

Mr. Morrell (Min. of Council, 1861–2, p. 130) says, 'I frequently find that a sum given to a class in its ordinary position will show a nearly uniform result; but if given out to it when the children are placed that each is thrown wholly upon his own resources, the accuracy of the result is diminished by nearly 50 per cent.

[1] Report for 1858, Comrs. of Nat. Educ. Ireland.

Pupils must understand the questions.

which will in the end become a habit. *Fifth: See that the pupils fully understand the questions and take down the right figures.* Confusion of figures and inattention to questions are prevalent causes of error, and as a consequence of slowness. To guard against them give out the questions clearly, not too rapidly, and only upon points that they ought already to know well.

Example of rapidity from Mr. Wood.

When these things are carefully carried out, it is scarcely credible to what a pitch of rapid calculation boys will arrive. Mr. Wood says of those attending the Edinburgh Sessional School, that some 'will multipy such a line of figures as

76859281654879938764

by 7, 8, or any other figure in less than the *sixth part of a minute.* From such a line they will subtract another of the same length, in the ordinary way, in about *seven seconds.* In addition, they will sum up seven lines of eight figures each, in the ordinary way, in less than *one-third of a minute*, and, if allowed to perform the operation while the question is dictating, in about *three seconds.*'

Acquire with quickness habits of promptness, &c.

This quickness is not the sole advantage, for they acquire with it an energy and promptness of action, and a quickness of mind practically valuable at all times.

Simple subtraction.

We have now treated of Simple Addition. The next rule is *Simple Subtraction.* In this rule, as in the other, when the pupil knows the proper table, and its mental application, he has but to become master of two additional principles in order to be able to work any question correctly. He must first learn to arrange the numbers properly, and he must know when to 'borrow,' when to 'carry,' and when to do neither.

Arrangement and borrowing.

In addition it was immaterial what arrangement of the addends was followed, provided always that units were placed under units, tens under tens, &c., but in *this the pupils* will find it easier to place the numbers to be operated upon in a certain relative position. They must place the small number below the other. This the children will have no difficulty in understanding.

Borrowing explained.

The principle of *borrowing* may be thus explained, but the explanation must be given of course only at proper times, and when the pupils are fully prepared to understand what is advanced. As a preparatory exercise, pupils should be accustomed to analyse numbers in the following way:—36, for instance, may be written 2(16), the 2 being in the *tens'* place, and the 16 in the *units.'* 349 may be written 2(14)9, the 14 occupying the second place, and representing 14 tens. The pupils should prove that these forms are strictly true, and represent the same value as the others. When they can do this correctly and intelligently, they should then be called upon to perform subtraction without 'borrowing,' by simply changing the upper line, in accordance with the models just shown. For instance, to take 198 from 349, they should represent the latter by its equivalent 2(14)9, and when arranged the figures will stand thus[1]:—

$$\begin{array}{ccc} 2 & (14) & 9 \\ 1 & 9 & 8 \\ \hline \end{array}$$

and the subtraction will be '8 from 9 and 1,' '9 from 14 and 5,' '1 from 2 and 1,' giving 151 as the true difference.

It must now be explained that the only effect of the change—the reduction of the 3 to 2—was to lessen by *one* the figure of the answer placed below it, and this would equally have taken place had they increased the figure of the subtrahend by one, instead of diminishing to the same amount the figure of the minuend, for 2 from 3 will be exactly the same as 1 from 2.

---

[1] Some may prefer to decompose the number according to the following form:—

$$349 = 2 \left.\begin{matrix}10\\4\end{matrix}\right\} 9$$

A child will thus see that there are two methods of arriving at the answer. He should be accustomed to work the questions by both, until he can do so perfectly. He will then be in a position to understand that we reject one plan as being clumsy and awkward, and adopt the other as being free from these defects; that in both we decompose the numbers, but in the usual method of subtraction the change is imagined only and not really performed.

Test questions to be more searching.

The test questions on this rule ought to be more searching than what they are; the difficulty is in dealing with ciphers, and with those figures of the minuend under which there are no corresponding figures in the subtrahend. Questions involving these difficulties should frequently be given. Take 9032 from 1000000 is a good test question; or take 1005 from 100304, &c. When the subtrahend and minuend both consist of significant figures, and are of the same length, the questions are too easy.

Defects in the working of this rule.

In the actual working of this rule the children should avoid expressions like this; '9 *from* 2, *I cannot but* 9 from 12.' They should be required, from the very first, to say '9 from 12' merely, omitting, as absurd, the part in italics.

3rd Rule. Multiplication. It is of two kinds.

The next rule is Simple Multiplication. It may be divided into two kinds; (1) containing all questions where the multiplier is any number from 1 to 12 inclusive (the multiplication table in ordinary use not extending farther); and, (2) all other questions.

1st class should scarcely require any special explanation.

Any child who knows the tables well, and has acquired facility in 'carrying,' should find no difficulty whatever in solving all questions contained in class one.

How to teach the second class.

Class two should be commenced by solving questions whose multiplier consists of one significant figure with ciphers attached—as by 20, or 200, or 400, &c.—and this they should do by multiplying by the significant part only, and then affixing to the product the proper number of ciphers.

They should next learn to multiply by using the parts of the number which are formed by analysis—not the factors. Thus, to multiply by 436, they should multiply by 400, by 20, and by 6, and add the results together. They will then be in a position to understand the ordinary mode of multiplying, but instead of skipping a figure for each place in the multiplier they should insert the ciphers.

Thus, to multiply 3246 by 422, the work should be as follows:—

$$\begin{array}{rl} 3246 & \\ \underline{422} & \\ 6492 & (1) \\ 64920 & (2) \\ \underline{1298400} & (3) \\ 1369812 & \end{array}$$

Line (1) being the product by 2; line (2) being the product by 20; and line (3) being the product by 400.

They will soon see that if the figures are put in their proper places that ciphers are useless, as they do not change the result. And they will thus learn why the ciphers are omitted, and why one place or two places are skipped.

Rule about 'skipping.'

With regard to 'skipping,' the best guide to the child is to tell him to place the first figure of the product immediately under the figure by which he multiplies. In the above example, the 2 in line (1) goes under the first 2 of the multiplier, the 2 in line (2) under the second 2 of the multiplier, while the 4 in line (3) goes under the 4 of the multiplier.

This rule is peculiarly good in dealing with ciphers. To lessen the chances of error in using it, the figures must be arranged units under units, tens under tens, &c. They ought not to be placed thus, as they too often are:—

$$\begin{array}{l} 201 \\ \quad\underline{406} \end{array}$$

Children must know the value of the figure by which they multiply.

In all cases the child must know the value of the figure by which he multiplies. He must know, for instance, that in the question above, although he simply multiplies by 4, he in reality is multiplying by 400. It is a good custom to make him, now and then, perform each multiplication separately, and then add the results for the product required.

Must carry what is over in the memory.

In this rule, as in addition, &c., he must always bear the number to be carried in the mind. It is unseemly to be putting it down and rubbing it out every moment.

May repeat what is carried.

In multiplying he may be allowed to repeat the number to be carried, as it assists the memory. Thus, '9 times 8 are 72, carry 7' (putting down the 2), '9 times 3 are 27 and 7 are 34, carry 3,' &c.

4th Rule. Division. First error, in omitting to factor.

The last of the four simple rules is '*Division.*' With regard to it, teachers often err in allowing their pupils to employ Long Division, when, by the use of factors, they might judiciously shorten the work.

Second error, in adopting it too often.

Others, again, commit an equally grave error in insisting upon 'factoring' in the case of all composite numbers.

True plan as regards the use of factors.

The true plan is to divide by factors when *they are not numerous, and when they are easily dicovered.* Thus, though 432 is made up of 6, 9, and 8, yet the time taken to discover this would be sufficient to do the question by long division; and again, though 3125 is made up of a series of fives, as the termination 25 shows, there would be so many divisions that factoring would be the most tedious course.

Decimal remainders best in dividing by factors.

Again, when factors are made use of, the children should be taught to express the remainders as decimals. It is very easy to show them how to do this, and the results are more correct and the work quicker.

The connection between *Long and Short Division*

The connection between Long and Short Division is *scarcely* ever perceived by children, or scarcely ever *taught* to them. On the contrary, they are practically led to look upon these two rules as entirely distinct from each other — as much so, in fact, as are the rules of Addition and Subtraction.

not always perceived by teachers and children.

This very serious error is best avoided by commencing Long Division by employing small numbers, such as 6, or 4, or 12; working the same question afterwards by Short Division, and then comparing the two processes.

Thus, supposing that we wished to divide thirty-four thousand five hundred and eighty-eight by six, the work would stand thus by the process of Long Division :—

$$\begin{array}{l}
6)34588(5764 \\
\underline{30} \\
45 \\
\underline{42} \\
38 \\
\underline{36} \\
28 \\
\underline{24} \\
\tfrac{4}{6}.
\end{array}$$

while it would stand thus by the other process :—

$$\begin{array}{l}
6\underline{)34588} \\
5764\tfrac{4}{6}.
\end{array}$$

The latter process employing apparently, but only apparently, much fewer figures.

Both contain the same processes.

By Long Division we say 6 into 34 gives 5 (as in Short Division) and leaves 4. This 4 is *actually* put before the 5 in Long Division, while it is only *supposed to be* before it in Short Division; and so on with the other operations.

It clearly follows, therefore, that Short Division does not, as it seems to do, contain fewer processes than Long Division, or any different ones; the only

Their sole differences.

differences, in fact, between the two consisting in their appearance on the slate, and that the operations are chiefly mental in the one, while they are actually recorded in the other. The one rule is employed when the carrying and subtracting can be done mentally, the other when they cannot. And as the mind is more exercised in the one than in the other, it is a question whether it would not be found, by the child, to be easier to begin with Long Division than with Short.

Long division might judiciously precede short.

Proof of rules necessary.

Children should be accustomed *occasionally* to *prove* their work, but only occasionally, and for this purpose they should be taught those methods which are neatest and best.

Best proof of addition.

The best method of testing the accuracy of the result in addition, is to add the numbers from top to bottom after adding them from bottom to top.

Proof by cutting off top line, &c.

The method of cutting off the head-line is not so accurate, for there is no variation in the addends, and, therefore, if the error have been made between the bottom line and the second line from the top, it is likely to be made in the second addition also. This fault may be remedied by cutting off the low line instead of the top line, as this changes all the addends effectually; but even when thus made more reliable it is not so neat as the first method, and if applied it would, in many cases, disfigure the account.

Better to cut off the bottom than the top line.

But in either case not neat.

The principles upon which these proofs depend can easily be made familiar to the children by employing small numbers at first, and verifying the results by actual counting.

Two proofs of subtraction:—1, by addition; 2, by subtraction.

There are two methods of proving subtraction; (1) by addition, (2) by subtraction; but inasmuch as the child is supposed to know the former rule better than the latter, the proof by it is the one generally selected as likely to lead to the truest results.

To test the result, the child may be told either (1) to add the two low lines; or, (2) to subtract the bottom line from the top. If the result in each case be the same as the remaining line, the answer may be said to be correct. (The terms top line, low line, &c., are preferable to the proper technical expressions *minuend*, *subtrahend*, *remainder*, especially with young children, as they are less likely to be misunderstood or misapplied).

Not necessary to form a fourth line in proving subtraction.

In proving this rule it is not necessary for them to form a fourth line, as they frequently do; it is sufficient for them to compare each figure as they perform the process mentally.

Principle upon which the proof rests.

The proof of this rule rests upon the fact, which they cannot fail to understand, that if what is taken away from anything (represented by the middle line) is added to what is left (represented by the low line), the whole (represented by the top line) will be again made up. In other words, if one gets back all he gave away he will have what he had at first.

Multiplication, proofs of, difficult, and not always correct.

Best proof by division.

Division and multiplication ought to be taught together.

The proofs of multiplication are rather difficult, and some of them not sufficiently conclusive. The best available proof is by division, and the children should therefore postpone the testing of the results until they know that rule thoroughly. With regard to this, I may remark that, in my opinion, multiplication and division should be taught conjointly. Thus, after getting a child to multiply by 4, or by 2, &c., I might get him to divide by the same numbers. There are so many practical advantages arising from this union of the two rules, both in the facility of proof, as mentioned above, and of explanation, &c., that it might be adopted very judiciously.

Practical proof of division by multiplication.

But best by subtraction.

The *practical* proof of division is, of course, by multiplication; the true proof, however, is by subtraction, just as the true proof of multiplication is by addition. And, although in many cases the proof by subtraction cannot be resorted to at all, yet the children should occasionally be called upon to use it where practicable, so that they may fully understand the connection between the rules of subtraction and division.

ationalé.'
'hen to in-
oduce it.

With regard to the *rationalé* of arithmetic—or the clear and just exposition of each step in the several processes, some difference appears to exist both as to how far it should be carried and as to the time at which it should be commenced. Some insist upon a full explanation of every part of each rule from the beginning, and detain the pupils until this explanation is supposed to be mastered fully; while others neglect the *rationalé* of each process almost entirely, paying attention chiefly to the mechanical manipulation.

lue of it.

An examination of this question will show us that both are in error. The advantages arising from exposition of principles appear to be the following four: (1) To assist the child to some extent in the actual application of the rule; (2) To enable him to adopt concise processes, based upon these principles, whenever occasion offers; (3) To make the whole more permanent in the memory when actual practice has ceased; and, (4) to strengthen and improve the mental powers generally. The last alone has a purely educational value. The others, though educative to a certain extent, are valuable chiefly in reference to the subject itself. It is with them, therefore, that we have chiefly to do when endeavouring to make our pupils proficients in *arithmetic*, and as the great tests of proficiency in it are *quickness*, *neatness*, and *correctness*, exposition of principles must be taught only in so far as they are necessary to secure these qualities or degrees of excellence. If we could secure them permanently without such exposition, there would be no *arithmetical* value whatever attached to it. But as we cannot secure these ends either so readily, so well, or so permanently by the mere adherence to stated rules and the imitation of model questions, we are forced to resort to reasons and fundamental explanations. (Of course I am not now discussing the great mental advantages arising from demonstrations, I am referring solely to the arithmetical advantages which attend them.)

Conclusion from it.

In the case, therefore, of young children the *rationalé* of arithmetic should not be strictly enforced. (1) Because their reasoning powers are too imperfectly developed to deal clearly with a science so abstract; (2) because the objects sought for, correctness, quickness, permanency, &c., are in their case secured by the constant daily practice in working questions which they possess, by the quickness of thought, and by the strength and vividness of memory with which nature at that period has endowed them, as if it were to counterbalance their deficiencies in judging and reasoning.[1]

---

[1] The following remarks upon the connection of theory and practice are extracted chiefly from the Minutes of Council, and will prove valuable to the teachers:—

Mr. Cook (1852–3, p. 386) says, 'There are two tendencies to be guarded against by school teachers. On the one hand, they are apt to give sums to be worked without previously taking care that the pupils understand the principles of the rule, or the mode of its application; on the other hand, they sometimes occupy all the time devoted to this subject in oral explanations and questions. The former was the more prevalent fault a few years since; it left the children apathetic and unintelligent, but not without a certain amount of mechanical dexterity in elementary rules, which is of great practical value to persons in their station of life. The latter is the more usual defect at present; if not carefully watched and checked, it is to be feared that many boys who appear to be conversant with abstruse principles will leave school without having acquired the habit of careful and independent calculation, or the ability to make out accurate accounts. A just mixture of intelligent explanation and practical application ought to be insisted upon by school managers.' He adds, that from his own attention to the matter, 'most girls in the upper division can keep the accounts of a household, or retail business; and that a large proportion of the boys can make accurate estimates of the quantity and expense of the different kinds of work in which they are likely to be engaged.'

Dr. Morrell (1861–2, p. 130) says, 'The bare mechanical facility of dealing with figures is not to be despised, and is not always secured; but it would be more easily imparted and more surely retained, if it rested upon a better knowledge than it commonly does of the first elements.'

Mr. Fletcher (1846, vol. ii. p. 97) says, 'Briefness of time at school requires that the principles should be of easy application, that the pupils should have a technical use of number, as of

Practice first, science afterwards.

In arithmetic, as in other cases, we must proceed from the known to the unknown, from the example to the

language, *beyond* their conception of the *rationalè* of the rules. *Art must lead science, but it must not leave science behind.*'

Mr. Thurtell (1847–8, vol. ii. p. 7) says, 'I am far from thinking that the reasons of the rules ought to be in all cases taught to young children with the rules themselves. The reverse order appears in general the proper one: first, to ensure a familiarity with numbers, the symbols for them, and the mode of dealing with them, and to discuss the reasons for the *familiarised* operation. A teacher of knowledge and tact will, however, from the first make his instructions in a suitable measure intelligent.'

Mr. Wilkinson concurs in this view: *see* 1856–7, p. 678.

'I do not expect boys,' says Mr. Kennedy (1849, vol. ii. p. 181), 'to be able to master the principles before they have acquired a good deal of experience in the practice; but when they have got a certain amount of practical power in working the rules, the principles should be more dwelt upon and explained than they are.' (See also his remarks in 1851–2, p. 693.)

See also (1855–6, p. 647) Dr. Woodford's Report.

Mr. Currie, in his 'Common School Education,' states the case very clearly in the following words:—

'Arithmetic is one of the three branches which have always found a place in secular school instruction from their *instrumentary* character; i.e. from their having a distinctive value as instruments in the business of life apart from that which the acquisition of them may have as educative processes. The power of using these intelligently is of higher value than any acquaintance with them which is merely practical: yet, so far should we be from undervaluing the latter, that we must regard it as the *immediate* object of their being taught at all in school. In different ways and degrees, however, the study of these instruments may be made effective means of mental cultivation; and as this does not interfere with, but rather promotes, the attainment of practical skill, the teacher should consider at every step how this higher end may likewise be attained. The substance of what has been said, so far as regards arithmetic, is this: that the teaching of it should be carried on with two ends in view, a special and a general; the one to give the pupil skill in computation, the other to strengthen the powers of his mind. The two, though distinct, must be aimed at simultaneously; the one aiding, and testing the attainment of, the other. If the teacher keep in view the special end alone, he may enable the pupil to make a good appearance under a superficial examination, and fit him in a certain sense for entering on business, but he neglects the opportunity of enlarging his mind, and thereby of fitting him for a more influential position in business: if he allow the general end to engross him too much, by failing to impress facility in using definite modes of procedure amidst the profusion of his exposition, he rule. The true course appears to me to be this; secure quickness and correctness of manipulation at all hazards, *but while doing this impart as much explanation of principles as is fully within the comprehension of the class.* And at some future time, pointed out by their expertness in actual work, by their advance in years, and general knowledge, introduce them regularly to the study of all reasons and proofs, as they will then be in a position to understand fully and with ease what no amount of illus-

may injure the pupil's prospects, whilst he will certainly discredit his own method.

'In every numerical process there are two things to be apprehended: the rule which directs it, and the theory of which that rule is the expression. Both are necessary, and each should be taught with reference to the other; the theory with a view to the rule, the rule as founded on the theory. And it is as much an exercise of intelligence to carry out the theory to the rule, as it is to trace the rule back to the theory. In expounding any process the teacher should first of all lay before his pupils some familiar examples, from which they may be led to see the object of the process, and by analysis of which they may infer the elementary numerical operations which must be combined to attain that object. When they can account for all the steps of the combination, they know the theory of the process. The principle of teaching here assumed is identical with that already insisted on in the case of the other two instrumentary branches of reading and writing (§ 343). It enters into the very idea of teaching arithmetic intelligently that the pupils study the theory of the processes; but here, as elsewhere, the theory must be derived from the practice, the general from the particular, the unknown from the known. And this is what is done when the teacher first submits examples to his pupils within their experience, and, leading them to see what operations are required in these special cases, carries them along with him in evolving therefrom the procedure in the general case. When the theory has been reached and impressed by a sufficiently wide induction of examples, it remains for him to show them how its conclusions may be embodied in a short handy formula for practical working, i.e. to extract a convenient *rule* from it. In passing on to which he must be careful to compare the full form of working necessary to reach the theory of the process with the shortened form of working directed by the rule: that they may see that the latter is not anything new or arbitrary, but either only a different setting down of the process for convenience' sake, or a shortened form in which certain ellipses of operation must be carried along in the mind of the operator.'

tration could have rendered clear or practically available before.

Use of rule must be explained before the practice.

This does not, however, refer to any explanations necessary to make the pupils understand the *use* of each rule. For in every case the children should know what it is they are actually seeking, before they begin to seek for it—what it is they hope to arrive at by the processes they perform—and therefore the *use* of each rule must be explained before the actual work, or at least conjointly with it, from the beginning. This is done not by the explanation of definitions or of technical terms, but by getting the children to apply the rule to such easy numbers as will allow of a verification of results by a reference to sensible objects. In *addition*, for instance, the addends should be at first small. Thus, 3 and 2 and 7 make, when *added* together, 12. And of the truth of this the child can satisfy himself by a reference to books, slates, children, marbles, &c. When the addends are gradually extended, until at last the results cannot be conveniently tested, the child will still feel, that if he could test them, they would prove correct, and will see that by this rule he is enabled to tell *without actual counting* how many any number of objects would amount to if the separate groups were thrown into one. When asked 'What is the *sum* of so and so?' he will soon be able to perceive that he is merely asked, 'How many objects (units) would there be were they all counted together?' He thus learns what the *use* of the rule really is; and is made familiar with the leading fact in addition, that the result is a number equal in value to all the numbers added, that is, that it contains as many units as all the others, and that it contains no more.

How to explain.

The terms 'added together' and 'sum' do not appear technical, owing to their very frequent use in common conversation, but they are in reality technical, and very few children really understand them unless they are explained as above.

The *use* of the other rules can be explained in the same way. Nor will this present any difficulty to children, especially to those taught the composition of the tables upon the principle already required by me.

Explanation of *terms* not to be confounded with this.

Teachers must not confound explanations of *terms* with explanation of *processes*, *principles*, and *uses* of the rules. They are essentially distinct. They should also take care to convey their explanations in all cases briefly, and in correct and precise words, remembering that lecturing fatigues and produces inattention, and that a command of an easy, familiar, and exact language, with a power of illustration suited to young children, is essentially necessary to success.

Language to be clear, &c.

Explanations to be frequently gone over.

In dealing with explanations of processes, remember that many children work by model examples, even after explanations have been given by the teacher and correctly understood. They have a tendency to forget the theory and to recur to the way in which the rules were first learned. This can only be checked by a constant reference to it, and as time will not sometimes allow of this in the ordinary way, it will sometimes be found advisable to take up each rule, and without actually working the questions, make the pupils explain how they ought to be worked, and account for each step fully. This can be done as often as seems necessary.

Teachers should test their own work.

Before concluding my remarks upon the Simple Rules, I may suggest, for the guidance of the teacher not only here but upon other matters, that he should occasionally drop his own peculiar functions and take up those of an examiner or inspector. He should try his children by proper test questions, to see how much they really know of what he has taught them, and how far they are able to make use of their knowledge.

Questions should not give a clue to the rules.

In arithmetic these test questions should be so framed as to afford no hint from their phraseology either as to what rule they come under, or as to how the application of the rule ought to be effected. There should always be a margin to exercise the child's ingenuity, for by this means alone is the test sufficiently searching. Besides, by such questions the mind of the child is improved, while the pleasure he experiences at success encourages him to proceed.

Examples.

The following are examples of such questions upon the Simple Rules:—

1. I had 560 apples, and I got 50, how many had I then?
2. A man puts into a bank 600*l.*, 780*l.* and 950*l.*, how much money did the banker receive in all from him?
3. By how much is 30401 greater than 4006?
4. If I had 4600 pears, and gave away 209, how many have I yet?
5. 1000 persons travelled in a train; 50 in 1st class, 21 in 2nd, how many travelled in 3rd?

The words *add* and *subtract* being omitted because they suggest the rule. The same principle applies to the rules of multiplication and division.

Examples of questions on one rule in terms of another.

It is a good plan to ask questions in one rule in terms of another. Thus:—

What number should be *added* to 420 to make it equal to 781?

If you put down 980 twelve times and *add* them, what will be the result?

How often can I *subtract* 82 from 9060?

Master must make questions for them when on the floor.

When pupils are in desks, they can depend upon the questions contained in their text-books, but when on the floor they must solve questions solely of the master's own framing—questions designed not only to *teach* arithmetic, but to *test* the teaching. The master must therefore acquire the habit of framing the questions quickly, and of joining them skilfully with the every day life of his pupils, so that he may endow arithmetic from the commencement with a life and purpose intelligible to the children, and thus obtain for it a ready acceptance.

Dean Dawes advocates questions of this kind very strongly in his 'Hints;' to that work I refer the teachers for some valuable suggestions, and for some neat examples of the questions themselves.

Compound Rules.

All arithmetic is but the application of what has been already treated of. Two lessons to be learned from this.

All arithmetic is but different applications of the principles and rules treated of in the preceding pages. Hence we learn two things, (1) the vast importance of making pupils thoroughly familiar with those at the outset, and (2) of showing the peculiar connection existing between them and each new rule.

Exact agreement with Simple Rules to be pointed out, and also the new element.

Each of the advanced rules resembles some of the Simple Rules, but each has an element peculiar to itself. Good teaching requires, therefore, that with every new rule the child should clearly see (1) its exact agreement with the Simple Rules, and (2) when the difference begins and in what it consists.

Connection between simple and compound Rules explained.

So far as the Compound Rules are concerned this is easy. Let us find, for example, the sum of £66 14*s*. 8*d*., £15 13*s*. 9*d*., and £10 2*s*. 6*d*., employing, however, the rule of Simple Addition only. The work will stand thus:—

£	*s*.	*d*.
66	14	8
15	13	9
10	2	6
91	29	23

The result being £91 29*s*. and 23*d*.

It is clear, however, that 23 pence consists of one shilling and eleven pence; and, therefore, that £91 29*s*. and 23*d*. can be expressed £91 30*s*. and 11*d*.;

and, again, as 30 shillings is equivalent to £1 and 10*s*., the same amount may be expressed £92 10*s*. 11*d*.

e reduc- n is the v element ompound les.

We thus see that until we commence the reduction of the pence to shillings, and of the shillings to pounds, we employ the Simple Rules only. This reduction is, therefore, the new element, and it is to it, of course, that the child's attention should be chiefly directed. He should know how to perform it expeditiously and correctly, and also why he performs it.

The 'why' is clearly to comply with the usual and convenient method of speech employed when speaking of money; and to gain expedition and correctness the child may at first be allowed to express the equivalents on the slate according to the following method:—

£	*s.*	*d.*
66	14	8
15	13	9
10	2	6
91	~~29~~	~~23~~
	1	11
1	9	0
£92	10	11

The 23 is scored out and 1*s*. 11*d*. put for it; the 29 is then scored out and its equivalent substituted, and the whole are added together to produce £92 10*s*. 11*d*. But the sooner he begins to perform the operation mentally the sooner will he acquire the necessary quickness.

hy called mpound ules.

Compound Rules thus consist of two or more questions in Simple Rules, and it is from this fact that they are so called. Decimal coinage, and decimal weights, &c., would get rid altogether of Compound Rules, as in decimals the reduction is already made.

Special instructions about performing compound rules.

All my remarks upon quickness, neatness, mechanical aids, proofs, &c., apply to the Compound Rules equally as to the Simple Rules. It is only necessary to state; (1.) That in adding the shillings' column it is better to add the units by themselves, placing the units of the sum down as in simple addition, and then to add up the tens, dividing the result by *two*, putting down what is over, if anything, than to add all into one sum and find how many pounds are in it.

(1.) How to divide by 20.

(2.) In adding farthings, it is incorrect to repeat the word *farthings* often, as is the usual custom; thus instead of saying, for instance, 'three farthings and one farthing are four farthings, and two farthings are six farthings,' we should say simply, 'three and one are four, and two are six farthings.'

(2.) Do not repeat the farthings.

(3.) In dividing by small numbers, such as 9 or 12, Long Division is not to be employed. This appears an unnecessary caution, but the fact is that Long Division is almost universally employed in such cases instead of Short Division.

(3.) Avoid long division in dividing by small numbers.

Suppose, for instance, it was required to divide £119 19*s.* 11*d.* by 12. The way usually met with is as follows:—The child says '12 into 119 gives 9, and 11 over.' The 9 he puts down under the pounds, and the 11 he places in some other part of the slate, multiplying it by 20, and dividing the product by 12. By these operations he gets 19, and 11 over. The 19 he puts under the shillings, and the 11 he writes in some part of the slate to be multiplied and divided as before. He rubs out the portions not required, and retains the results merely. But this is not Short Division, for, as has been already explained (see page 229), the operations of Short Division are mental. It is in reality Long Division, as is easily seen by comparing the parts rubbed out with the several portions of the work when actually performed by that rule; but it is the worst form of Long Division, for it is devoid of regular arrangement.

ause of this rror.

Children are induced to perform the questions thus from the difficulty they experience in multiplying by 20, and in dividing, when large, the products so obtained. The best way to remedy this is to teach them to divide somewhat as follows:—

ow to roid it.

(1.) 12 into 119, 9 times and 11 over, put down the 9 only.

(2.) 11 times 20 are 220 (11 times 2 being 22), and 19 are 239. Thus far they will readily go.

(3.) Instead of saying '12 into 239,' teach them to say '12 into 23,' putting down the one in its proper place, and then '12 into 119,' placing the 9 of the quotient beside the 1, giving as a result 19 shillings, with 11 over, &c.

Practice will make them perfect at this; but in order that they may be induced to practise it, the master must at first insist upon their holding their slates in such a position that he can see what they write upon them.

oficiency quired in mpound les.

To entitle a child to pass as knowing the Compound Rules, he should be able to explain the terms employed, and to answer test questions similar to those given under the head of Simple Rules; as, for instance, '*How often can I take* 4*s.* 8*d. from* £12 6*s.* 7*d.*'

'*If* 12 *cows cost* £400 16*s.* 8*d.*, *how much did one cost?*'

'*Three men lodge* £500 10*s.* 8*d. in bank, one man gets one share of it, another two shares, and the other three, how much did each get?*'

In such cases the child's ingenuity is taxed to find out whether he should multiply or divide, add or subtract, and it is by the decision at which he arrives that his *real* knowledge of arithmetic must be judged.

duction.

The rule of *Reduction* can present but little difficulty if the pupils know the tables thoroughly. I would merely suggest that, in the earlier exercises, they should reduce each part separately, and then add them, to form the true answer. Thus, suppose it were required to bring £30 15*s.* 6*d.* to pence, it would be better to bring the £30 to pence first, then the 15*s.*, and to add the results to the 6*d.*

In Reduction there are two things which the children have to consider: (1) whether they ought to multiply or divide; and (2) by what? The first will be decided by the nature of the question—whether it be required to change the name to a higher name, or to a lower—and the second by the *tables.* If I want to bring 3 cwt. to qrs. I must *multiply*, because the name is lower; and I must multiply by 4, in preference to 6, 7 or any other number, because there being 4 qrs. in 1 cwt., there will be four times as many qrs. as there are *cwts.*

All changes in *Reduction* are in form and not in value, and therefore the terms multiply and divide are used peculiarly in this rule. This peculiarity will require the master's explanation.

PROPORTION.

What the Rule of Proportion is.

Proportion in arithmetic, or the Rule of Three, is the application of the previous rules to the discovery of a number, which shall have *a given relation* to another. In this rule the numerical value of the relation, or ratio, is not expressly stated; it is merely said to be the same as that which exists between two given numbers. Thus, instead of asking, 'How much is *three* times twelve?' the question is put in Proportion thus:—'Find a number which shall have the same relation to 12 that 3 has to 1, or 9 to 3, &c.?' The first is a mere question in Simple Multiplication, the second is a question in *Proportion*, but they come to the same thing exactly.

New element

The new element in proportion, therefore, is *to*

In proportion is merely to find the multiplier. The multiplier is the reciprocal of the ratio.

find the multiplier, for when this is found the question is reduced to the Simple or Compound rules.

The multiplier is always the reciprocal of the value of the ratio. To find the multiplier we must, therefore, be able to find the value of the ratio. Nothing however is easier. We have merely to divide the first term of the ratio by the second. Thus the value of the ratio of 2 to 8 is 2 divided by 8, or $\frac{1}{4}$, and of 8 to 2 is 8 divided by 2, or 4.

If the previous question were worded somewhat thus, what I have said might be more clearly perceived:—

'Find a number which is as many times greater than 12, as 6 is greater than 2?' To solve this it is clearly necessary to find how many times 6 is greater than 2, and this is clearly but a question in Simple Division; 6 divided by 2 gives 3 for the number of times. The question, therefore, stands thus:—'Find a number which shall be 3 times greater than 12?' which is, of course, an easy question in Multiplication.

Difference between Multiplication and Proportion.

The exact difference, therefore, between Multiplication and Proportion is that in the prior rule the multiplier is actually given, whereas in the latter the elements only for finding it are given.

As those elements are, however, sometimes so placed in the question that they are not immediately detected, it is necessary first to discover them. The rules which guide us in this matter refer to what is technically called the *statement* of the question, *or the just and orderly arrangement of the terms to be operated on.*

Why 'statement' is required.

Rules of statement.

They are as follows:—

(1.) Put in the right-hand corner of the slate that term which is of the same name as the term required.

(2.) Place the *greater* of the two remaining terms to the left of it when the required term should be *greater* than that already placed, and put the *less* term in that place when the *reverse* is the case.

(3.) Put the remaining term in to the left of that.

The term to the right hand is technically said to be in the *third* place (though *first* placed), that in the middle is said to be in the *second* place, and the other in the *first*.

Marks of separation.

It is usual to separate the first term from the second by two dots, and the second from the third by four dots, but so far as the actual working of the rule goes, any other division would be quite as good. These marks are used in reference to the *theory* of proportion, and are convenient when treating of it.

Not essential.

Mechanical rules of statement to be avoided.

We should be guided in stating a question solely by these rules:—All mechanical forms founded on forms of expression, such as 'How much,' 'What will,' &c., should be scrupulously avoided.

Object of statement.

The object of the above rules is simply to find out what term should be first, and what second, so that the true multiplier can be discovered. We proceed first by eliminating one term, which is called the third, and by this we find what terms should occupy the two other places, but we do not yet discover which of the two should go first, or second. The next two steps clear up this difficulty.

Position of third term immaterial.

The position of the third term is not material, so far as the working of a question in arithmetic goes; but to the right of the others is found to be the best place, as it is its true place among the four proportionals.

When 'statement' is uncalled for.

Whenever the two first terms and their proper order are easily detected, it is obvious, from the above remarks, that there is scarcely any necessity for a formal statement. Questions like the following:—'If one article cost £12 6*s*. 8*d*., what will 10 cost?' 'If eleven articles cost £14 6*s*. 8*d*. what will one cost?' are mere questions in Compound Rules. To make a regular statement before solving them, is simply waste of time. In fact, such questions should never occur under the rule of Proportion in a proper work on arithmetic.[1]

---

[1] See McLeod's Solutions of Questions by First Principles.

In many other cases, also, statement will be found unnecessary, as the pupils will be able to change the questions by reasoning on the terms, so as to bring them into the Compound Rules.

Thus, 'If 6 yards cost 24*s.* how much will 11 cost?' The pupil may say, 'I want the price of 11, and this I could easily get, if I had the price of one. I am given the price of 6 and can find the price of one from that. I will divide by 6 to get the price of one, and then multiply by 11.' He will readily and correctly reason thus after a little time, especially if he has been frequently practised on questions like those above.

Or, he may say, 'If 6 yards cost 24*s.* then 11 times 6 cost 11 times 24*s.* or 264*s.* Then, if 11 × 6 cost 264*s.*, 11 itself must cost one-sixth of this?'[1]

Additional process sometimes necessary before the true multiplier is found.

In some cases, before the multiplier can be found, 'a process' in addition to the 'statement' is necessary. When the terms found are not of the one name we must bring them to it. This is clearly necessary; for how could I tell, for instance, how many times £1 is greater than 2*d.*, unless I brought both to pence, &c., and unless I could tell this, I could not find, as already explained, the true multiplier.

Sometimes difficult to deal with the multiplier, hence other rules.

It also happens sometimes that it is difficult to deal with the multiplier thus found, and plans have been adopted to get rid of the difficulty. These, however, do not change in any way the real nature of the rule.

(1.) Fractional multiplier.

(1.) The chief of these consists in employing the fractional division instead of the actual quotient; thus, 'If 5 tons cost £10 10*s.* 5*d.* what will 7 cost?' The true multiplier is clearly $1\frac{2}{5}$, but as this is somewhat troublesome to deal with, we multiply by $\frac{7}{5}$ in its place.

(2.) Finding the

(2.) Another method consists in finding first the price of one article and then of the required number.

---

[1] Min. of Council, 1845–6, vol. ii. p. 30, note*; and 1847–8, vol. i. p. 6, note †.

price of one, then of the given number.

Thus, to solve the above question we find the price of one article by dividing by 5, and then of 7 by multiplying this quotient by 7. As, for instance:—

Cost of 5 tons=£10 10 5

$$\text{,, } 1 \text{ ton} = \frac{£10\ 10\ 5}{5} = £2\ \ 2\ \ 1$$

,, 7 tons= cost of 1 ton multiplied by 7
=£2 2 1×7=£14 14 7

This is clearly but another form of No. 1, as it is but another way of multiplying by the fraction $\frac{7}{5}$.

(3.) Ordinary plan of multiplying by second term and dividing by the first.

(3.) The ordinary rule of multiplying the third term by the second, and dividing by the first, is also clearly nothing but an example of No. 1.

The work by each of the ways would be as follows:—

Examples by each method.

By the *general* method.

$$\begin{array}{rrrl} £ & s. & d. & \\ 10 & 10 & 5 & \times\ 1\frac{2}{5} \\ & & 1\frac{2}{5} & \\ \hline 10 & 10 & 5 & \text{(product by 1).} \\ 5)\overline{21} & 0 & 10 & \\ \hline 4 & 4 & 2 & \text{(product by } \tfrac{2}{5}\text{).} \\ \hline £14 & 14 & 7 & \text{(sum of products).} \end{array}$$

By variation 1.

$$\begin{array}{rrr} £ & s. & d. \\ 10 & 10 & 5 \\ & & 7 \\ \hline 5)73 & 12 & 11 \\ \hline 14 & 14 & 7 \end{array}$$

By variation 2.

$$\begin{array}{rrr} £ & s. & d. \\ 5)10 & 10 & 5 \\ \hline 2 & 2 & 1 \\ & & 7 \\ \hline £14 & 14 & 7 \end{array}$$

By variation 3.

Same as variation 1.

That by variation 2 is clearly the simplest. The figures are smaller, and the work will therefore be not only more quickly executed but more correctly also. This should be made use of therefore whereever practicable, in preference to any of the others.

(See on this subject Mr. Moseley's Report, Min. of Council, 1845–46, vol. ii. note to p. 30; and again, 1847, vol. i. note to p. 6.)

Two processes adopted to make the multiplication more easy.

1. Cancelling.

2. Reduction of third term to one name.

In working by the ordinary rule, there are two processes which are sometimes made use of that render the work more easy and expeditious, but they are adopted solely for this purpose, and are therefore by no means essentials of the rule itself. I mean the 'reduction of the third term,' and 'cancelling.' Take such a question as this:—If 346 sheep cost £100 12*s*. 8*d*. what will 4004 cost? To multiply £100 12*s*. 8*d*. by 4004 would take too many factors. It is therefore much better to reduce the money to pence and multiply by simple rules; but in many other questions it is by no means required or correct to do so. I regret to find, however, that it is almost universally gone through, and therefore, of course, it is adopted, in many cases, very absurdly and thoughtlessly. The fact is, that when the first and second terms are small—easy to use in multiplication or division—the reduction of the third term is a waste of time. Thus, to solve the question, if 5 cows cost £10 10*s*. 5*d*. how much will 11 cost? how very absurd it is to go through the following work,

When the reduction should take place, and when not.

```
£5 : 11 : : £10 10  5
              20
             ---
             210
              12
             ----
             2525
               11
            -----
          5)27775
         12)5555
       2,0)46,2 11
          £23  2 11
```

when the same result can be found by simply multiplying by 11 and dividing by 5, as thus:—

$$\begin{array}{rrr}
\pounds 10 & 10 & 5 \\
 & & 11 \\
\hline
5)115 & 14 & 7 \\
\hline
\pounds 23 & 2 & 11
\end{array}$$

And not only more simply and more quickly, but also more correctly, for the less the number of figures the smaller is the chance of error.

What cancelling is.

The second process is called 'cancelling,' and consists in reducing the terms to smaller ones by dividing in accordance with certain rules. We can cancel any multiplier with any divisor, but not two multipliers with each other. We cannot cancel the third term with the second, but we can cancel any other pair of terms. This depends upon the nature of fractions, and can be easily explained to children. The chief thing to convince them of is, that no change is made in the value of the real multiplier.

How it is to be performed.

When it should not be adopted, even if possible.

Cancelling should not always be resorted to, even when possible. The division must be *evident*, else it would be more expeditious to avoid cancelling altogether. Thus, if the numbers are 4 and 8, 3 and 9, 9 and 27, the advantage of cancelling is manifest; but if the numbers are 182 and 195, no cancelling should take place, for although both are divisible by 13, yet it would take more time to discover this than to actually multiply and divide by them. In fact, as the object of the process is to save time, it ought only to be adopted when that object can be secured—in fact, it not only ought to be adopted then, but it is wrong to neglect it; but when its adoption is likely to cause delay, it is equally wrong to put it in force.

The name of result.

When the third term has been multiplied by the first, and divided by the second, we get a result which has the same name as the third term if not reduced, or has the name to which it was reduced. When we do reduce the third term during the

Why result is sometimes reduced back

again to other terms.

working of the question, the answer is generally reduced back again to agree with the denominations which that term originally possessed, but this is only necessary when usage requires a particular form of expression.

The rules, as now stated, may be thus summed up:—

Summary of rules.

1. State the question.

2. Reduce the first and second terms to the same name, if they are not already so.

3. Reduce the third term if it consists of different denominations, *and if at the same time the other terms are large.*

4. Cancel.

5. Multiply the third by the second and divide by the first.

6. Reduce the result to the terms required by common usage.

Remarks on these.

And with regard to these, we may thus sum up what has been already advanced.

1. Statement is not always necessary, and should not be used in many questions.

2. The reduction of the third term, when the first and second are small, is incorrect in theory, and productive of error in results.

3. Cancelling to be advantageous must be apparent.

4. The third term may be divided often by the first before being multiplied by the second, and this method is generally easier than any other.

5. The result needs reducing only when usage requires a different form of expression.

Proof of the rule.

The ordinary *proof* of proportion consists in multiplying the answer by the first term, and testing whether the product thus obtained is the same as that already obtained by multiplying the third by the second.

Ordinary proof not a good test.

This is not a good test of correctness, for if the division by the first term be correct, the product of it and the fourth will be the same as the product already found of the third and second, no matter how incorrect that product may be. The best proof is to divide the first by the second, and the third by the fourth, and if the quotients agree the work is true.

Best proof.

Up till this time I have kept away as much as possible from the theory of proportion; I have treated the subject chiefly as a mere arithmetical rule, labouring to show its connection with multiplication (of which it is a variation), and by what means the results ought to be arrived at; but to understand the rule fully, and the reasons of several of the processes, it is necessary to know the theory of proportion.

Theory of proportion necessary.

Proportion deals with ratios. To understand it, therefore, we must clearly understand what is meant by ratio. Ratio is the relation which exists between two numbers *of the same kind.* The parts in italics are important, though generally left out by many persons when called upon to define this term. Hence, if two terms are placed together of different names, no *ratio* can exist between them, even if the sign of the ratio be used. It is on this account that, in 'stating' the question, we place the terms in such a way that the first and second should be of one name, and the third and fourth.

Proportion deals with ratios.

Ratio defined.

We must never forget that in talking of *ratio* we are really talking of a *fraction.* When we say, for instance, the ratio of 3 to 4, we really are speaking of the fraction $\frac{3}{4}$. Again, when we say that one *ratio* is equal to another, we merely say that one *fraction* is equal to another. As, for instance, when we say that the ratio of 3 to 4 is equal to the ratio of 6 to 8, all that in reality we assert is, that the fraction $\frac{3}{4}$ is equal to the fraction $\frac{6}{8}$; a statement which can be easily verified by any one who has already learned Fractions.

In talking of *ratio*, we are merely talking of a *fraction*.

When this is not clearly borne in mind, the nature of proportion is unintelligible. Proportion is defined as the equality of ratios. It is better to define it as 'a statement that one ratio is equal to another,' or, if we allude to what is called compound

This is necessary to understand *proportion* fully.

Definition of proportion.

proportion, 'to several.' This statement is not made in words, but in signs; two dots being used for the ratios, and four dots for the equality. These four dots might therefore be expressed by the ordinary sign of equality =.

l ways
ting
rtion.

The following expressions are all equivalent:—

(1.) $3 : 4 :: 6 : 8$
(2.) $3 : 4 = 6 : 8$
(3.) The ratio of 3 to 4 is equal to the ratio of 6 to 8.
(4.) The *value* of the ratio of 3 to 4 is equal to the *value* of the ratio of 6 to 8.
(5.) $\frac{3}{4} = \frac{6}{8}$
(6.) As 3 is to 4 so is 6 to 8.

The last is the most objectionable. The fifth leads to the least misconception of what is really stated, and forms the best test of its accuracy.

Those who know that the expressions

$$3 : 4 :: 6 : 8 \text{ and}$$
$$\frac{3}{4} = \frac{6}{8}$$

of the
ient
he
ct of
s equal
ct of
nes.

are equivalent, and who understand some little of fractions, will have no difficulty in seeing that 'the product of the means (or middle terms) is equal to the product of the extremes,' for by the nature of fractions 3 times 8 is equal to 6 times 4, these numbers being numerator and denominator alternately of equal fractions.

This principle, so often quoted in this Rule, and upon which the proof of proportion already given rests, should be fully understood. The following may serve as good test questions upon it:—

ues-
n this

Given the 1st, 2nd, and 3rd terms, to find the 4th. By what terms would you multiply and divide?

Given the 2nd, 3rd, and 4th terms, to find the 1st. By what terms would you multiply and divide?

Given the 3rd, 4th, and 1st terms, to find the 2nd. By what terms would you multiply and divide?

Given the 1st, 2nd, and 4th terms, to find the 3rd. By what terms would you multiply and divide?

Or, given the 1st, 2nd, and 4th, how would you state the question so as to find the 3rd? &c.

A question in proportion is equivalent to an easy question in division.

From this principle also, it is easy to see that a question in proportion resolves itself into the following simple question:—

'Given the product of two terms, and one of them, to find the other?' For you are given the *product* of the first and fourth (being the same as the product of the second and third), and you are given the first. The fourth term is therefore easily found by division.

When pupils have learned the theory, they should be called upon to account for each of the processes in the actual working of the question. Several statements should be placed before them, and they should be called upon to say which is wrong and why, and which is right and why. They should also be required to enunciate the statement in full. Thus, if 6 cows cost £40, what will 7 cost? Instead of saying, as 6 is to 7 so is £40, they should be required to say, as 6 *cows* is to 7 *cows*, so is *the price of* 6 *cows* (£40) *to the price of* 7 *cows*. And when the answer is got, they should frequently form with it and the other three terms a regular proportion properly stated and arranged, in order that they may see that it was a fourth term they were looking for. Again, the pupils should be tested occasionally *in writing*. Very often they may express themselves pretty fairly *vivâ voce*, and yet fail in putting the rule clearly in writing.

Again: as the rule is called the Rule of Three, many pupils think that when three terms are given it must be adopted. I have already shown when it ought not. But I have often met with even advanced boys who tried to solve such questions as these by the rule:—'I went to the fair to buy six cows, but finding them too dear I bought but four, giving for each £10; how much money did I expend? 'A man earns 15*s.* a week, gives 2*s.* 6*d.* a week to a savings' bank; how much will he have saved in four weeks?'[1]

PRACTICE.

Use of this rule. By this rule we solve, without a 'statement,' certain questions in proportion, chiefly those where unity occurs in the first term, as where it is required to find the price of several commodities when the price of one of them is given. **Why called so.** It is called *practice* because it is a collection of the methods actually *practised* by merchants in their ordinary calculations.

Use of the tables of aliquot parts. This rule is rendered easier than proportion, chiefly by the use of what are called *tables of aliquot parts.* In order, therefore, to gain true facility it is necessary to commit these tables fully to memory. **Must be got off.** In answering upon them the pupils must exhibit the same quickness and correctness as were shown to be essential in the tables of addition, subtraction, multiplication, &c. No child can be supposed to be proficient who cannot answer rapidly and correctly such *vivâ voce* questions as the following:—**Test questions.** What parts would you take for 15*s.*, 10*s.*, 9*s.* 8*d.*, 6*s.* 4*d.*, 3*s.* 2*d.*? 1 qr. and 4 lbs.? 2 oz. 3 dwts.? &c., the answers given being in each case the *most suitable* parts. They should also be able to use the complement instead of the number itself, as in taking parts for 3*s.* 4*d.* they should deal with 6*s.* 8*d.*—the difference between it and £1, or, as it is called, its *complement*; but, like cancelling in proportion, and 'factoring' in division, they must not only know how to do this, but when to avoid it.

---

[1] See on this Minutes of Council, 1851-2, p. 1014; 1855-6, pp. 646 and 647; 1857, p. 654; and Currie, p. 424 (Common School Education).

Connection between proportion and practice.

Each distinct rule in practice is designed to facilitate some one or more of the operations required in the rule of proportion. No child can, therefore, be said to understand this rule fully who cannot show what are the exact steps in proportion it renders unnecessary or more easy. In order to teach them this they should be called upon frequently to solve the same question by both rules, and to compare the two processes. In a good treatise on arithmetic, the rules of practice should be classified in accordance with the connection that each has with the rule of proportion; and in teaching these rules the master should make the arrangement, when not already made for him by the author.

How to classify the rules of practice.

To explain more fully what I mean, take the following questions:—

What is the price of 14 lbs. of tea at 120*s.* per cwt.?

What is the price of 2 qrs. and 14 lbs. at 50*s.* per cwt.?

The statement of these questions, if solved by proportion, would be—

cwt.		qrs.	lbs.		*s.*
1	:		14	: :	120, and
1	:	2	14	: :	50

To solve each it is necessary (1) to reduce the first and second to one name; (2) to multiply the third by the fraction formed of the first and second; (3) to reduce the answer to pounds sterling. But in practice the use of aliquot parts enables us to dispense with the formal reduction of the terms to one name. We deal with the fraction $\frac{\overset{\text{qrs.}}{2}+\overset{\text{lbs.}}{14}}{1\text{ cwt.}}$—rather than with the fraction $\frac{7}{112}$—by separating it into $\frac{2}{1\text{ cwt.}}\times\frac{14}{1\text{ cwt.}}$; and by the tables of aliquot parts, we know that these are equal to $\frac{1}{2}$ and $\frac{1}{8}$th respectively; we therefore multiply the 50*s.* by $\frac{1}{2}$ and by $\frac{1}{8}$, and add the results, reducing to pounds sterling as above. The difference therefore between practice and proportion, in these questions, is both the same; that is, in Practice we take a short way of finding the multiplier.

Take again the following question:—

112 lbs. at 4*d.* per lb.

The statement, when the question is solved by the rule of Proportion, is:—

1 : 112 : : 4, and the work would be

$4 \times \frac{112}{1}$, which would give the answer in pence;

or $\frac{4}{12} \times \frac{112}{1}$, which would give the answer in shillings. This is equivalent to $\frac{1}{3} \times \frac{112}{1}$, and this again to

$$112 \div 3$$

We are therefore *saved* in Practice the multiplication by the fraction, and we use an easier way of reducing the third term to shillings. This question is therefore distinct from those above, and should come under a different classification.

Take again 40 lbs. at 1*s.* 6*d.* per lb.

The statement here is:—

1 : 40 : : 1*s.* 6*d.*, and the work is

$$1s.\,6d. \times \frac{40}{1} = \frac{40 \times 1s.}{1} + \frac{40 \times 6d.}{1} = \frac{40 \times 1s.}{1} + 40 \times \tfrac{1}{2}s.$$

Practice, therefore, enables us to multiply the third by the second in an easy way.

The other rules have all special peculiarities which it would be too long to investigate here, nor is it necessary to investigate them, as the above examples sufficiently make clear the principle of classification for which I contend, and the method of explaining the connection between each rule and proportion, which I say is so essential to all who aim at proper proficiency in practice. I may only observe that the questions are in many arithmetics very injudiciously grouped under different rules, in order, I believe, to make them more easily understood, but in my opinion this multiplication of rules is very incorrect and confusing.

Thirteen Rules could be reduced to one.

For instance, the following rules are all separate:

To find the price of cwts., qrs., and lbs., @ £1 per cwt.

To find the price of tons, cwts., qrs., @ £1 per ton.

To find the price of acres, roods, perches, @ £1 per acre.

To find the price of yds., qrs., nls., @ £1 per yd.

To find the price of oz., dwts., grs., @ £1 per oz.

To find the price of tons, bags, cwts., @ £1 per ton.

To find the price of tuns, hhds., gal., @ £1 per tun.

To find the price of barrels, st., lbs., @ £1 per barrel.

To find the price of furlongs, per., yds., @ £1 per furlong.

To find the price of furlongs, chains, per., @ £1 per furlong.

To find the price of years, months, weeks, @ £1 per year.

To find the price of hundreds, scores, articles, @ £1 per hundred.

To find the price of reams, quires, sheets, @ £1 per ream.

&c. All these are clearly alike in character, and when separated we are obliged to remember the multipliers in each case. They should all be solved by the following general rule, which aims at showing the child how to find the multipliers instead of telling him what these multipliers are. Rule :—

This rule stated.

(a) Under whatever the denomination is which is said to cost £1, place the figure 1 for multiplier; (b) to find what multiplier should be placed under the next denomination, say, 'If *one* of the first denomination cost £1, what will *one* of this denomination cost?'—the answer will be the multiplier sought; (c) to find the next multiplier act in the same way; (d) finally, when all the multipliers have been found, multiply the terms of the given quantity by their respective multipliers, 'carrying' as in Compound Multiplication.

This one rule saves the thirteen above and several others; for when the principle is once known, its extension is very easy to questions where the price is not at £1. If the price were £2 per cwt., for instance, the multipliers would be £2 2*s*. 4$\frac{2}{7}$*d*., or, at £3 per ton, they are £3 3*s*. 9*d*., &c.

Shop accounts.

What are called 'bills of parcels,' or 'shop accounts,' come under the head of Practice, though most of them should be solved by the Compound Rules. No class of questions is more practical than these, and none more neglected or more loosely solved. In many cases they are so much unattended to, that it is not unusual to meet with boys working Progression, Position, &c., unable to compute the amount, or test the accuracy, of a small bill; or, if able, they do so by such long methods as cover the slate with figures.

For instance, if required to find what is 4½ yds. @ 1*s*. 6*d*. per yard, 5¾ yds. @ 10*d*. per yard, and 9¼ @ 2*s*. 6*d*. each, they either fail completely or else they work out each separately on the slate, putting down every figure and rubbing out when the result is obtained. Instead of this, they should adopt the following plan:—

	£	*s*.	*d*.	£	*s*.	*d*.
4½ yds. @ 1*s*. 6*d*. per yard=		6	0	0	6	9
			9			

	£	s.	d.	£	s.	d.
5¾ yds. @ 10*d.* per yard =		4	2	0	4	9½
			5			
			2½			
9¼ ,, @ 2*s.* 6*d.* ,, =	1	2	6	1	3	1½
			7½			
				£1	14	8

The price of 4 yds. @ 1*s.* 6*d.* per yard is calculated mentally and put down; then the price of ½ yd. at 1*s.* 6*d.* per yard is also calculated mentally and put under it; the two are then added into one sum (6*s.* 9*d.*), and put opposite the price of the 4½ yards. In the same way the others are calculated, first by parts, and then the parts are united to form the price of the whole. Time is saved by this means, because the operations are made in the mind and not on the slate.

To be more practical. Throughout the entire course arithmetic ought to be made more practical than what it is. Mr. Jenkins, in his report to the Education Commissioners of 1861, says, 'One of the most marked defects in teaching this branch was the non-practical character of the arithmetical exercises. In a very large proportion of even the public schools questions for working were given in a form which had not the slightest analogy to, and could not form the least possible preparation for, the application of arithmetic to the business of practical life; e.g., in "addition of money" I found that the finishing exercises were composed of eight, or at most ten lines, of such amounts as £540,976, instead of being, as they undoubtedly ought to be, long columns of twenty or thirty numbers of two or three figures each only.'[1]

Nature of practical question. The pupils attending the ordinary primary school are destined afterwards to be clerks, artisans, farmers, labourers, &c., and, therefore, the arithmetic taught should deal with the addition of long columns of money, such as are met with in ordinary merchants' transactions, with shop bills, with estimates of the earnings of labouring men at so much per piece or per day, with costs of materials, values of work when perfected as compared with the expense of production, with the purchase and sale of agricultural commodities, of oats, hay, potatoes, wool, bacon, cattle, &c; and to these may be added questions upon domestic economy, consumption of tobacco, beer, &c.; upon rates of travelling, costs of cartage, &c., and generally upon all things that they are likely, after they leave school, to require.

---

[1] Education Commission, 1861–2, vol. ii. p. 557.

See also Min. of Council, 1847, vol. i. p. 34; 1857, pp. 263 and 389; 1859–60, pp. 30, 87, and 179.

Mental arithmetic.

What is called mental arithmetic is important in reference to this subject. This is, however, like the other, too much neglected, probably from its nature being so much misunderstood.

Error of teachers in reference to it.

Most teachers look upon it as a mere collection of rules so framed as to facilitate the solution of certain questions without the use of slate or paper; that is, in the mind. If this were so, though it would possess some utility, it would be very far indeed from being a valuable practical exercise, because the rules would be easily forgotten, and the special cases to which they are applicable might very seldom arise; but mental arithmetic, in its true acceptation, is not so much opposed to *slate arithmetic* as to *mechanical arithmetic*, though it is opposed to both. By mechanical arithmetic we solve all questions of the same class by the application of one fixed rule; mental arithmetic enables us to discover and take advantage of any peculiarity in the terms and their arrangement, or in the general conditions of the question by which the work may be curtailed.

True acceptation of term.

Definition of it when opposed to *slate* arithmetic.

When mental arithmetic is opposed to slate arithmetic, it consists in solving questions by the ordinary rules, but without slates, the figures being entered, as it were, in the 'tablets of the brain.' Thus, to find the difference between 6*s.* and 7*s.* $1\frac{1}{2}$*d.*, or between 18*s.* 4*d.* and 20*s.*, or to find the price of 4 yards at $2\frac{1}{2}$*d.*, or 10 miles at $2\frac{1}{2}$*d.* per mile, we can proceed as easily by the ordinary rules of arithmetic as by any others. If we use slates, they are solved by slate arithmetic; if not, they are *mental arithmetic.* This sort requires, in addition to that knowledge of the common rules which all arithmetic requires, merely a quick, vivid, and retentive memory; skill in it is secured solely by practice. It is, therefore, the duty of the teacher to exercise his children so frequently upon this that they will acquire the true degree of excellence; and if he insist upon their committing to memory the extended tables of multiplication, pence, &c., already alluded to, he will find his trouble considerably lessened.

Example.

Skill then depends on, &c.

He must also teach it in connection with each rule, and from the first. When a child knows a rule fairly upon the slate, he should always be accustomed to solve some simple questions upon it mentally. These questions should increase in difficulty according to the proficiency of the children.[1] If this is done properly, the pupils will in a short time be able to solve questions which require a considerable amount of thought. Mr. Morrell says that, 'it is not an unusual exercise to give a number such as 78,654,931 to be multiplied by 6, 8, or 12, and to receive the correct answers in a few seconds, without the use of pen or pencil.'[2] The chief value of such an effort is not arithmetical, but educational; for, practically, a child will never be called upon to solve mentally so long a question. Its utility consists in the formation of a power of concentrating all the faculties on the performance of an allotted task; and the mind that can do so will soon prove capable of any amount of labour upon other tasks as well.[3]

Must be taught witl each rule, and from the very first.

---

[1] See McLeod's Mental Arithmetic, after the method of Pertalozzi.

[2] Min. of Council, 1855–6, p. 564.

[3] Mr. Fletcher gives an instance of this power acquired by

Faculty multiplying nine figures by nine.

When Miss Edgeworth ridiculed the faculty of 'multiplying in the head nine figures by nine,' she overlooked the valuable power of concentration, and referred solely to its utility in a strictly arithmetical point of view, and in this view it is worthless.

This power must be cultivated, as it is valuable, and as it can be cultivated without interfering with the true purposes of arithmetic as an instrument in the business of life; but the teacher must refer chiefly to practical questions, such as those already described for slate arithmetic. The more practical arithmetic is, the more valuable.

Mental as opposed to mechanical.

When mental is opposed to mechanical, it consists in a judicious modification of the common rules, or in the framing of rules entirely new. Thus, to subtract 36 from 65, or to add 42 to 28, it is easier to act upon the *tens* first, although the ordinary rule requires that we should begin with the *units*. Again, to find the price of 240 articles at 13*d*., we ought to multiply 240 by 13, and then divide the product by 12, and the quotient so found by 20; but when we see that 240 is equal to 12 times 20, it is unnecessary to multiply by 240, and then divide by its equivalent (12 times 20): we therefore merely call the pence pounds sterling, and get the true answer.

Or, again, to find the interest at 5 per cent., we consider the pounds in the principal as shillings for a year, and pence for a month, owing to the fact that to multiply by 5 and divide by 100 (as the ordinary rule requires) is the same as dividing by 20, and that to divide by 20 we need only reckon the pounds

---

habit, and by the careful vigilance of the teacher, which is worth quoting. He says, 'I found, on coming from the top draft to the lower, that its monitor had not a single boy to teach, while his grave countenance and audible whisper indicated intense and incessant application, which proved to be in putting to himself and answering hap-hazard questions in the multiplication of large numbers, in which my presence did not for a moment interrupt him.'—*Min. of Council*, 1846-7, vol. ii. p. 98.

as shillings. The interest for a month being the twelfth part of the interest for a year, it will, at the rate of 5 per cent., be the twelfth part of a shilling, or one penny.

What this sort requires.

This sort of mental arithmetic, therefore, requires a quick intelligence, an active and retentive memory, a thorough acquaintance with each step in the ordinary rules, and a perfect knowledge of the principles upon which they are founded. The only way to secure proficiency in it is by adequate practice, and by teaching arithmetic *deductively*; that is, by connecting one step with another by such proofs and processes as are easily understood when fully explained.

General hints rather than rules.

The duty of a writer upon this branch is to give general hints rather than rules; but, as many of the questions will be found to admit of the same solution as the best and easiest, these may be judiciously grouped under one rule; and, when rules are so formed, it is the duty of the teacher to see that the chief of them are fully understood and remembered.

Mental arithmetic a valuable preparation for business of life.

Mental arithmetic, in both acceptations of the term, is a valuable preparation for entering upon the ordinary avocations of life, as it gives readiness in performing those little domestic and mercantile transactions that are continually occurring to all of us; but it is peculiarly advantageous in an agricultural community, where the calculations, for the most part, are made out of doors, and not, like the merchant's, in a shop.

Mental arithmetic like geometry in general terms.

Arithmetic is the 'logic of the people;' and what geometry in general terms is to Euclid, mental arithmetic is to it. When carefully taught, it improves the slate arithmetic itself; it gives precision and accuracy both of expression and results; it is permanent, and, in its higher acceptation, it forms an admirable agent for quickening the intelligence of the children — for developing the judgment and improving the reason.

Not taught at present.

Such being its great advantages, it is with much regret that I am obliged to record the fact that it is either wholly neglected, or taught so seldom or so carelessly as to be practically valueless. This is my own experience; and I see, from the reports of Inspectors in Great Britain and Ireland, that it is pretty generally the experience of all.

Why.

This probably arises from the worthlessness of results produced by the present system of teaching it, from the very strong condemnations accorded to it on account of this failure, or from the appearance of trick and legerdemain which it bears with it. But the practical failure arises from its being confined to special rules got off by rote—a double error, as it should not be so confined, nor should they be got off without being fully understood; and the show is not necessarily a part of this exercise, only in so far as it is a part of all expositions of school proficiency in classes.

Work at first partly in the head and partly on the slate.

In carrying out this exercise, it is a good plan to permit the children at first to work some of the questions partly in the mind and partly on the slate. Thus, to find the price of 6$\frac{7}{8}$ yards at 2*s.* 10*d.* per yard, they may be allowed to work the fractional portion on the slate, when they calculate mentally the price of the 6 yards.

About fifteen minutes enough. Questions to be rapid.

The lesson never should extend beyond fifteen or twenty minutes, as the mental strain is too great. The teacher's questions should be rapid, so as to prevent listlessness and inattention in the class. He may occasionally find a 'Ready Reckoner' a handy and suitable text-book, as the questions in it are easy and practical. By the use of it he can, if he think necessary, give a distinct question to each child.[1]

---

[1] For further remarks on mental arithmetic, see the Reports of the Commissioners of National Education, Ireland, and the Min. of Council, 1846–7, vol. ii. p. 96; 1851, p. 695; 1855–6, p. 564; 1856–7, p. 467; 1860–1, p. 29; Currie's

It would take too much space to go minutely into each of the higher rules of arithmetic; I am, therefore, obliged to omit them; but I do so with less regret from knowing that the vast majority of the children who attend our primary schools seldom remain long enough in them to go beyond Practice, and that the chief difficulties and errors are found almost wholly in the elements of every science.[1]

Three hints on Interest.

I shall conclude by merely giving the three following hints concerning Interest, the most important of those rules not discussed:—

(1) (1.) Accustom the child to place the multipliers and divisors in the form of a fraction before he begins to work, as by this means he will more readily understand many of the abbreviated processes given in the usual elementary treatises, and, which is even better, he will be enabled very frequently to make out others for himself applicable to the peculiar question before him.

'Common School Education,' p. 415; Dunn's 'Principles of Teaching,' pp. 95 and 96; and Wood's 'Sessional School,' p. 261.

[1] Many of the faults found in the higher classes, and much of the slowness and want of intelligence displayed, may be traced to a neglect of a frequent recurrence to elementary rules and first principles. On this point Mr. Warburton says (Min. of Council, 1859-60, p. 140): 'I make it a rule on every occasion to test the soundness of the children's arithmetic, however far they may have been pushed on, by simple dictated sums in the first four rules, and have found, more frequently than it is pleasant to state, that children professing a knowledge of Compound Proportion, Interest, and Decimals, could not be relied upon to put down in proper form and work out correctly a subtraction of two figures from three, or make out a bill of the simplest kind.'

Mr. Fletcher says (Min. of Council, 1846-7, vol. ii. p. 96): 'Nor is there in most schools that occasional revertal to the early rules, and to those even of Notation, which would awaken a child's perception to the value of the whole.'

It is a bad plan, however, to put children back from one rule to another to begin the study of it anew. Nor is it necessary: all that is required is to take the opportunity, as it offers, to give test questions upon what is already passed over, and to frame the questions on the rule at which they are actually engaged in terms of the others.

For instance, to find the interest of 12*l*. 16*s*. 8*d*. for one year at 5 per cent., the child, before he begins the work, writes the question down thus:

$$£12\ 16s.\ 8d. \times \tfrac{5}{100};$$

and he can see at a glance that that is the same as dividing by 20.

Or, to find the interest for four years at 5 per cent., he writes the multipliers thus:

$$£12\ 16s.\ 8d. \times \frac{5 \times 4}{100} = \tfrac{20}{100} = \tfrac{1}{5};$$

and sees that dividing by 5 saves a vast amount of trouble.

(2) (2.) Make him clearly perceive that to divide by 20 is merely calling the pounds shillings; and, by 12, calling the shillings pence.

(3) (3.) Do not let them divide by 100, according to the long process of cutting off two figures, multiplying by 20, by 12, &c., but teach them to divide by it in one line, in accordance with the following rule. Consider all but the first two figures as pounds; (2) take the one-fifth of these two figures for shillings; (3) place the remainder to the left-hand of half the shillings in the dividend, and consider the amount as farthings: this will give the pence &c. of the answer.[1]

---

[1] The following rules may be found of advantage:—

(a) *To find the interest at any rate for any time.*

Multiply the principal by the rate, and divide by 5: then count the quotient as *shillings* for a year, and as *pence* for a month.

(b) *To find the interest at 6 per cent. for a month.*

Cut off the units figure of the pounds; consider all to the left of it as *shillings*, and add the one-fifth of the units figure to itself and call the sum *pence*.

Note.—The interest for any other time or rate is easily found from this.

(c) *To find the interest at any rate for 5 months.*

Multiply the principal by the rate, and count the product as pence.

Note.—This is but a particular application of Rule (a).

CHAPTER VI.

GRAMMAR.

Object of teaching grammar in schools.

TAKING that definition of Grammar which is given in most treatises on the subject as our guide we see that the object of all grammatical instruction must be *to enable children to speak and write their own language correctly*, or, in the words of the Revised Syllabus (Min. of Council, 1856–7, p. 10), to give to them 'the power of writing plain and clear sentences with correct syntax, orthography, and punctuation.'

One method adopted was the sole use of text-books.

One plan adopted to secure this consisted in requiring them to commit the text-book to memory from the beginning to the end; but this is now abandoned by all except the very worst teachers.

Why wrong.

The arguments against it are similar to those already brought against the system of learning the meanings of words from the columns of a dictionary: viz. (1) that scarcely any child could remember all required of him; for, as the rules were too disconnected to aid the memory by natural association, and as the explanation of the terms—their use and meaning—by which alone the understanding might have been called in to assist, was wholly omitted, the child was almost certain to forget the beginning of the book while endeavouring to repeat the end; (2) that in any case it was laborious and unprofitable; (3) that grammar could thus be taught only to those who had already acquired a considerable proficiency in reading and general knowledge; (4) that it required an equal (1) (2) (3) (4) amount of attention to be given to each division of the science — to Orthography as to Etymology, to Prosody as to Syntax; (5) that the teaching wanted that vividness and force which always characterise, to a greater or less extent, oral instructions, and (6) that both the questions and answers constantly tended to become purely routine and mechanical, according to the well-established law, that when books alone are used, correctness of repetition comes in the end to be looked upon as sufficient, the master taking but little pains to test whether explanation from him is necessary to make the author's meaning intelligible to the children, and even less pains to give the explanation when it is clearly required.

(5)

(6)

Text-books tend to produce word teaching.

Evils of.

Grammar so taught destroyed the intelligence of the children, while it failed to give them facility in expressing themselves correctly; and, among the other evil effects produced by it, not the least formidable are that dislike to this study, and that settled opposition of the parents to its very name, with which all teachers of primary schools have to contend.

Present system an improvement, but not yet the most correct.

The system at present in force, though it is, in my opinion, as I shall endeavour hereafter to show, by no means the most correct, is a great improvement. By it the child's first notions of grammar are formed easily from the verbal expositions of the master, and this knowledge is largely extended in the same unlaborious manner; so that when the text-book is put into his hand, almost at the close of his course, he is prepared to understand and profit by it. By such means the child is certain, when using the text-book, to commit to memory only what he already very fairly knows the value of, and the master is more at liberty, in treating the subject, to vary the terms made use of, adopting a different illustration and a different phraseology wherever the natural abilities and capacity of each child demand such a course. Not being called upon to interpret the words of any author, he will be more

By it text-books are postponed until the pupil is far advanced.

Advantages.

certain to avoid all rote teaching, and to feel that his duty is to deal with the *facts* of language, and not with the *words* in which these facts are conveyed; he will be thrown upon his own knowledge of the science, and he will, therefore, the more likely make use of those natural modes of communication by which mind immediately acts upon mind, when no text-books intervene to perplex and confuse by being misunderstood.

He will also be the better able to introduce the child to what is easiest and most important first, and to dwell the longest upon what is most essential for each. An author cannot do this, as he is necessarily obliged to begin at the beginning—the part of nearly all sciences which is in general the most difficult and least understood—and to continue in accordance with certain heads and divisions which he previously marked out for his guidance.

Depends very much on the skill of the teacher.

A system like this, which excludes the use of a text-book until a certain advanced proficiency has been attained, must necessarily vary—as indeed all other systems must—with the skill of the teacher. To succeed, the teacher must know the subject well himself, and he must possess the power of communicating his information methodically, intellectually, and agreeably.

The following hints are th results of my own experience.

The following hints may be found of advantage. They are borrowed from the general results of my own experience.

Grammar must begin with Etymology.

Grammar must be commenced by the study of Etymology, and not of Orthography, for Orthography has comparatively very little to do in securing the great object sought.

Teachers must see that their instructions are not confined to the mere *terms* of the science.

Teachers must be chiefly on their guard against confining their instructions to the mere *terms* of the science. This is the great fault of young and inexperienced men. They forget that these terms are used solely to facilitate expression, and that, therefore, Sole use of these *terms*.

they may be committed to memory, and even applied correctly by a child who yet upon examination would be found to know nothing of the real nature of the subject which underlies them.

The terms *noun* &c. are technical.

The terms *noun*, *verb*, *adjective*, *adverb*, for instance, are purely technical, and are invented solely to record and express with brevity the peculiar grammatical force of certain words. To say that '*man* is a *noun*,' that '*good* is an *adjective*,' or that '*very* is an *adverb*,' is to talk technically; and unless the full meaning of these terms is known it would be quite as intelligible to talk Hebrew.

To teach the *terms* only is to teach *nothing*.

Many teachers do not explain them, as they think explanation too difficult.

To permit the use of the technical word, without seeing that it is fully understood, is, therefore, in reality to teach nothing. Many of the teachers who commit this fault fall into it unconsciously; but many of them—and I regret very much to say it—do so deliberately, under the erroneous impressions that explanation is too difficult for young children, and that they will understand the matter fully as they advance. Such men not only omit all explanation, but they look upon those who require it as too exacting and particular. It may be quite true that it is a matter of difficulty to give children correct ideas of the use of words, but it is equally true that, unless a child knows what is meant by the terms *noun*, *verb*, &c., any of his answers that contain these words are worthless. Such men rest satisfied with laboriously teaching nothing, and feel injured because others will not give them credit for the performance.[1]

---

[1] Mr. Morrell (Min. of Council, 1848-9, vol. ii. p. 466) says: 'It is forgotten that a technical knowledge of the subject does not necessarily involve any real knowledge of it at all; and that the power of acquiring words, which is so remarkable in the child, may easily cast a veil over the real ignorance which lies hidden behind them. To deal with the *memory* of a child is infinitely easier than to deal with its perceptive faculties and its intellect. The words which a child so readily employs in answer to set questions, may seem to indicate the most precise and complete acquaintance

But with such men these terms are injurious.

In fact, technical terms, as used by such men, are injurious instead of beneficial. They deceive both teachers and scholars, and prevent the real defects of information which underlie their flippant use from becoming apparent.

The parts of speech should be taught without using technical terms.

The use or force of a word in a sentence, which forms the chief object in teaching Etymology, can be treated of fully, though certainly in a longer way, without technical terms at all, and, in my opinion, *that is the way in which the parts of speech should be commenced by children: the use of the word first, the technical term expressive of that use afterwards.* Take, for instance, the sentence, 'Studious boys love their books.' We may thus express the use of each word:

Example.

Studious	*is used*	in *describing the objects* about which we are speaking.
Boys	,,	in *naming these objects.*
Love	,,	in *expressing an action.*
Their	,,	*for a word* (boys) *previously made use of.*
Book	,,	in *naming an object.*

No technical term is here made use of, and yet the matter is fully treated of; and though it is at the expense of a few words, yet one cannot but see that, by this additional expenditure, the child has been enabled to arrive at the real essence of the subject easily, and without the intervention of a language

---

with a subject; but I have been convinced, by many observations, that frequently no ideas whatever are attached by him to the terms he employs; and that, if he do attach any, those ideas are to a great extent incorrect, and to a still greater extent *inadequate.*' He adds this truth, which may partially account for the fact, that a few weeks of absence from school is for the most part sufficient to cause the children to forget all previously taught them; that 'knowledge digested, reduced to experience, made a part of our whole system of thinking, *is never lost; verbal knowledge, on the contrary, passes away almost as rapidly as it is acquired.*'

See also Min. of Council, 1855–6, p 432. Mr. Brookfield's Report.

which requires translation and explanation before it admits of intelligent use.

***Naming* words, *action* words, &c., may be used first.**

Children will thus come gradually to divide words into,—*naming words*, *describing words*, *action words*, *modifying words*, *connecting words*, &c. And these terms the teacher may make use of until they are fully understood.

Then *nouns*, *verbs*, &c.

How to introduce these terms.

Then, and not till then, should the technical names be taught; for it is only then that the children are in a position to understand and appreciate their advantage. These terms may be introduced somewhat thus:—The children may be told, for instance, that it has been agreed upon to call all 'naming words,' all words '*used* for naming objects,' by the short term, '*noun*;' to call all 'describing words,' all words '*used* to describe objects,' by the term '*adjective*;' and to call all 'substitute words,' all words '*used* for other words,' by the term '*pronoun*,' &c.—*brevity of expression being the sole object in view*; and that therefore in future, instead of saying that any word is 'used to name an object,' or is 'a naming word,' as they were before in the habit of doing, it is sufficient to say simply that it is 'a noun,' as the sense will be exactly the same in both cases.

Advantage of explaining the *use* first, and then the *term*.

Pupils by such a method cannot fail to see what technical terms mean, and why they are used, and are very unlikely to give to them an undue importance.

This system teaches the technical term from, or rather after, teaching the use of the word; but there is a system quite the opposite, which is sometimes confounded with it, and is in reality an abuse of it.

Example of a method often confounded with it.

For instance, take the sentence, 'Little bird with bosom red;' the questions &c. would go on somewhat thus:—

Teacher. What is the *use* of the word *little*?

Child. (No answer.)

Teacher. (Repeating the question in another form.) What is it for?

Child. (Again no answer.)

Teacher. What part of speech is *little*?

Child. (At once) An adjective.

Teacher. What is an adjective?

Child. 'A word *used* to describe an object' (being the definition they had learned of it).

Teacher. What is the *use* of the word *little*, now?

Child. To describe an object.

The true order is thus reversed, the *use* being taught from the 'part of speech,' and not, as ought to be the case, the part of speech from the use. This is clearly absurd. A child who did not know the *use* of a word could not possibly tell what part of speech (the technical term expressive of that use) it was, except by guess or from memory; for an intelligent answer to the one question requires an intelligent comprehension of the other. But, being told the part of speech, the child could state its use; for that is mentioned in the definition.

When these terms are used, the pupils should be called upon to show that they understand them.

When pupils once know the technical terms fully, they should ever afterwards employ them; but, to avoid all possibility of mechanical answering, they should be called upon frequently to assign reasons for what they say; or, in other words, to explain the exact meaning of the terms they make use of. To give the *definition* merely as the explanation of a term, is not, however, a sufficiently clear explanation. Take, for instance, the sentence—

The definition is not a sufficient explanation.

'John loves his book well.'

If a child tells me that 'John' is a noun, 'loves' a verb, 'his' a pronoun, 'book' a noun, and 'well' an adverb, and if, to test whether he understands what he says or not, I ask, 'Why is John a noun?' or 'What is a noun?' and if he says, 'A noun is the name of a person, place, or thing;' and if, in reply to similar queries about the other parts of speech, he says that 'A verb is a word used to express an action;' that 'A pronoun is a word used for, or instead of, a noun;' and, in the last case, that 'An adverb is a word which qualifies a verb, an adjective, and sometimes another adverb'—which are the usual forms of definitions given for these words—his answers do not afford me sufficient evidence that he fully understands what he says. I remember asking a child who had gone thus far accurately, What word did *well* qualify? and getting for answer, *his*, and *book*. And again in the sentence, 'The ink is black,' I asked a child, who told me that 'An adjective was a word which qualified a noun,' What noun did *black* qualify? He answered, '*A common noun, sir!*' In both of these cases the definitions were correctly repeated, but in both the subsequent answers proved what a mere pretence of knowledge existed.

A test which may be applied by every master as to whether the pupils really understand the reasons they give.

A master can easily test for himself the power that children possess of repeating and applying definitions accurately, without having the smallest intellectual acquaintance with the subject itself. If he name, in his question, the wrong part of speech, he will find that the definition of that part of speech is repeated as a reason. Thus, let him ask, Why is *he* a noun? Why is *rode* an adverb? Why is *white* a noun? &c. The child will say that *he* is a noun because it is 'the name of a person, place, or thing,' &c.

It is from a knowledge of these facts that I am anxious to press upon the teachers the necessity for sifting each answer with great care. They should, as it were, *cross question* their children, leaving them no loophole for escape, if their knowledge is not as full and as true as what it seems.

Definitions must be applied.

The child should not only give the definition, *but he should apply it to the exact case before him.* Thus,

'John writes very well; he reads badly.'

John is a 'noun,' because it is the *name of a person* (rejecting that part of the definition which is inapplicable here);

writes, a 'verb,' because it expresses *what John does*;

very, an 'adverb,' because it qualifies the adverb *well* (in this the child shows his knowledge, not only by rejecting that part of the definition which is inapplicable, but by naming the word actually qualified. The answer might have been given thus: 'Very is an adverb, because it qualifies an adverb;' but such an answer is incomplete, as the question, What adverb? is required to test the child fully);

well, is an 'adverb,' because it qualifies the verb writes (here the reason is different; and it is in recognising such differences as they occur that the child's skill is shown);

he, is a 'pronoun,' because it stands for the noun John (not because it stands for a noun, but for the noun *John*).

It is in such a form that reasons should always be exacted. In the senior classes it is not necessary to require them in the case of each word, but the child should always be prepared to state them if called upon. He should, for instance, be able to say *what* created the action of the verb; whether the adverb qualifies a verb, an adjective, or an adverb; and for what word the pronoun stands. He should also be able to read any passage using nouns instead of pronouns &c. But, in the junior classes, I think that every answer should be accompanied with some developement of thought in the form of reason. Thus—

Reasons should not accompany each answer in the senior classes.

But in the juniort ought.

John is a 'noun,' because it is the name of a person;
writes, a 'verb,' because it shows what John does;
very, an 'adverb,' because it qualifies well;
well, an 'adverb,' because it qualifies writes.

This early training is very effectual in rousing children from that sluggishness of thought and listlessness which are so frequently met with, and which tend eventually to produce the extinction of all

And then gradually dropped.

thought. This extended form of answering may, of course, be gradually dispensed with as the teacher discovers that his children really know the uses of the parts of speech.

The mere part of speech is not a full enough answer.

Such answers appear to be unnecessarily full, but, in addition to the training afforded by what makes them fuller than usual, anything less would scarcely be sufficiently correct. The answers—

John is 'a noun,'
writes, 'a verb,'
very, 'an adverb,'
well, 'an adverb,'

do not closely define the uses of each of these words. This may be seen by translating the technical terms into ordinary language:—

John is 'either the name of a person, or of a place, or of a thing;'
writes is 'a word which expresses some action;'
very and *well* are 'words which express either the manner in which an action is done, or the manner in which the use of some qualifying word is modified;'

The parts between inverted commas in both cases are exactly equivalent, but the latter form enables us to see more clearly how indefinite such answers are.

In the first case, for instance, we say that *John* is used to express one of three things, but we do not state which of the three. In the second case, we say that *writes* is used to express some action, but we say nothing of the cause of that action: the answers to the remaining two are equally indefinite with the answer to the first, their application to three different uses being mentioned without its being stated to which of the three they are actually applied.

Accompanying the answer with the reason removes this defect to a considerable extent. It not only does this, but it accustoms the child to think, and forms a good preparation for the 'parsing' exercises.

All definitions must be simple and accurate, and repeated always in the same words.

The definitions which the children are called upon to repeat should be *simple* and *accurate*, and the repetition should always be in the same words.

Simple definitions often misunderstood.

What a *simple* definition is is very often misunderstood. Some teachers, for instance, with the view of making the matter more easily understood, tell the child that a word is a noun, because we can *see it*, or because we can *hear it*, or *feel it*, or *smell it*, or *taste it*, as the case may be; or they tell him that a word is an adverb because *it ends in ly*, or that it is a preposition because *it governs the objective case.* It is quite a mistake to suppose that such teaching simplifies the matter. A definition serves as a measure, and should be applied to test the fitness of any word to occupy any given class, just as a carpenter applies his rule to test the fitness of any piece of timber to occupy any assigned position. To have four or five tests is, therefore, quite as inconvenient as if the carpenter was obliged to use four or five rules.

This plan consists in merely splitting definitions into parts, each in itself inadequate and incomplete; and it is because only one part is treated of at a time that simplicity apparently results. Were the definition written out in full, thus: 'A noun is the name of anything which we can see, hear, feel, taste, or smell,' very few indeed would be induced to make use of it as simpler than the definition in ordinary use.

In what true simplicity consists.

The only genuine simplicity consists in having a good definition for each part of speech—one that will be comprehensive and adequate—clearly applicable to every word to which it should be applicable, and as clearly excluding all others. In proportion as such definitions are expressed with simplicity, and made intelligible to children, so will the classification of words be made easy for them. They should invariably use them as measures, testing every word solely by its agreement or disagreement with the definition selected.

Some simple definitions very inaccurate.

But such definitions as those which I have just condemned for their want of simplicity must be more strongly condemned for their palpable inaccuracy. The definition for an adverb would make the children classify many adjectives incorrectly, as *manly*, *ugly*, *goodly*, *mealy*, &c.; while the definition of a preposition would equally misplace active verbs. But even supposing they did not do this, they would still be injurious, as leading to inconclusiveness of mind; for, although many adverbs do 'end in *ly*,' and although all prepositions do 'govern the objective case,' it is not for either of these causes that we called any word an adverb or a preposition. The causes assigned are incorrect, and a habit of giving them as if they were not must naturally tend to vitiate the reasoning faculty itself.

We cannot *hear* nouns, or *taste* them, &c.

The definition of a noun is inadequate, as it would exclude the names of all abstract qualities; but even suppose that it were not, it would still be incorrect, for we cannot *hear*, *smell*, or *taste* nouns; and although we may *feel* and *see* them, they are not for these reasons called so. Nouns, in fact, are *words*, not *things*, and this distinction is too often overlooked, especially by children. I remember puzzling an advanced class of girls by asking the simple question—Where are nouns to be seen? Some said in the room, as desk, slates, &c.; some outside, as houses, streets, &c.; but none appeared to know that nouns were seen only *in the book*—only where *words* were visible.

Nouns are *words*, not *things*.

This error is not confined to children. Grammarians themselves have fallen into it in many cases; as, for instance, in their definition of an adjective, which they say is a word which qualifies a *noun*.

Adjectives do not qualify *nouns*.

This is quite incorrect: a noun is a word, and it is not the word which the adjective qualifies, but the *thing* for which the word stands.

Definition of preposition incorrect.

This is one of the reasons why I recommend the teacher to test the accuracy of the definitions which his children are allowed to repeat. Book definitions are not always exact. Take as an additional instance the definition of a preposition, which some writers give: 'A preposition is a word which connects words together, and shows the relation between them,' that is, between the words. This is an error: it is between the things for which the words stand, and not between the words themselves, that the relationship exists. The following definitions may be found, perhaps, correct:—

Improved definitions of the parts of speech.

A noun is a word used in *naming* an object (thing).

An adjective is a word used in *describing* an object.

An article is a word used to lessen the number of objects to which the noun may be applied.

A pronoun is a word used for a word already used (or simply for a noun).

An adverb is a word used to qualify a verb, an adjective, or an adverb (the word *another*, which is generally put before the word adverb in the above definition, is here left out as unnecessary).

A verb is a word used to denote some action.

A preposition is a word used to join two words together, and show the relation between the objects for which the words stand.

A conjunction is a word used to join sentences or clauses together, or to join words, without showing any relation between the objects for which the words stand.

An interjection is a word used to express sudden emotion &c.

The wording of definitions must

Again, definitions should always be repeated in the same form. Before being committed to memory not be changed.

they should be very carefully explained, the teacher using during his explanation whatever language he finds correct, varying his words, of course, to suit the requirements of each child; but, when once understood, they should be committed exactly as they stand, and be ever afterwards repeated in the same form of words. The reason is very plain. The terms of a correct definition are well studied—the redundant words lopped off, the essentials retained, while their arrangement is such that an alteration of the phraseology can take place only with a disadvantage. Changes in the form of definitions produce looseness and general inaccuracy, not only in expression, but in the ideas themselves. And this is true not only of grammar, but of other sciences.

The order in which the parts of speech should be taught.

Next to knowing the proper method of teaching the parts of speech, it is essential to know the order in which they should be taught. The best way, in my opinion, is to divide them into threes; teaching in one class three, in the next class three, and in the class above three—by no means, however, limiting any class exactly to three, if it is found that they have acquired correct ideas of them before being fitted for removal in other matters. By such a course grammar can be commenced at an earlier period, and it is much less formidable than if the nine parts of speech were treated of together.

System in use in Ireland.

In the Irish National Schools the arrangement adopted is found to work remarkably well. In them the children in Second Book class (the lowest class but one, first class being the lowest) learn the noun, adjective, and article; those in Sequel Book class learn, in addition, the verb, adverb, and pronoun; while all in the Third Book class learn the preposition, conjunction, and interjection.

The first group is commenced with the noun, the next with the verb, and the third with either the preposition or the conjunction.

The noun and adjective are very well adapted for a commencement, as they are easily distinguished by any one who understands their respective definitions. As the article does not admit of being so easily distinguished in this way, its early introduction might be objected to as opposed to sound principle; but as there are so few articles, children soon learn to point them out quite correctly, though mechanically, and it is questionable whether it is not more advantageous, in some such cases, to admit of a small amount of the mechanical element than to adhere strictly to the course which is founded upon purely intellectual teaching. *Articles* are continually recurring; so that more difficulty would be experienced in teaching children who did not know them, than advantage would be gained in waiting until they were able to learn them upon true principles. In the same way it will be found more expedient, in many cases, not to press upon young children the *uses* of the prepositions, and of some few of the adverbs; for it is sometimes a matter of considerable difficulty to point out the exact words connected by prepositions, and to explain the nature of the connection which they institute, and very frequently it is found almost impossible to make some adverbs agree with the definition. These exceptions can scarcely be quoted against the rule—that the *uses* should be taught before the *technical terms*,—for 'there is no general rule without exceptions.' If the teacher keep in mind, however, the broad principle which should be his guide, he may very safely exercise his judgment when any deviation may appear necessary.

Noun and *adjective* easily known from their definitions.

Why the *article* is introduced early.

These exceptions are, however, only a question of time; for in all cases the pupils, as they advance, must be taught the uses of these parts of speech just as fully as of the others.

The following hints may enable the child to get correct notions concerning the '*article*.' The phrase

How to teach the *article*.

'a pen' can be applied to any pen in the school. We can say, pointing to one, that it is 'a pen;' to another, that it is 'a pen;' to a third, that it is 'a pen;' and so on, until we have applied it to all the pens in the school. We cannot, however, do this with the phrase 'the pen.' When we come to say that it is 'the pen,' we evidently find that we can only apply it to one thing in the same sense. If I tell a child to bring me 'the pen,' he must see that that phrase is applicable to only one particular object.

The phrase 'a pen' is therefore applicable to any one out of a class, while the phrase 'the pen' is applicable to some particular one—the difference in the application being caused solely by the use of the article.

Again, in the sentences—'Man' is mortal, 'A man' died yesterday, 'The man' is dying rapidly—we have three different applications of the one word Man, caused by the use of the article 'a' or 'the,' or the omission of both. In the first, it is applied to any of the human race—to man and woman, boy and girl. In this case it is said to be used in its 'widest sense:'—and I may remark here that very few real nouns admit of being thus used. In the second the number of objects to which the term is applicable is very much diminished; it is now inapplicable to women or children, and refers only to such of the male sex, having arrived at the age of manhood, as died yesterday. If sixty men died yesterday, the phrase is applicable to each one of the sixty in exactly the same sense. The sentence 'the man is dying rapidly,' clearly refers to but one man.

The article 'a' reduced the large number to which the first was applicable down to sixty, the article 'the' reduced this again to one. Hence the peculiar force of that part of speech 'in lessening the number of articles to which the noun may be applied.'

The definite article not

Although the article 'the' points out the object more definitely than either 'a' or 'an,' and is thus entitled to be called the 'definite article,' it yet points it out very indefinitely after all. Thus, if I say bring me 'the chair,' I shall be understood by any one, if there is but one chair in the place, but I shall not be understood, if there are two or more chairs, except by those who had already received some clue to my wishes. The fact is that the expression is elliptical, and is, of course, intelligible only to those who can supply what is left out. 'Hand me the chair' (*on which I always sit*). 'Give me the pen' (*with which I wrote yesterday*). The parts in brackets, or something similar, being understood, complete the sense.

very definite in pointing out nouns.

In the same way the demonstrative pronoun, which is also used for pointing out, performs its peculiar functions imperfectly. It differs from the definite article, however, in this—that the sense is generally made complete in the one case by actually pointing to the object, and in the other by supplying certain words. 'Give me *that* chair' is indefinite unless I point to the chair. 'Give me *the* chair' is indefinite unless, as explained above, the ellipsis be filled up.

Demonstrative pronouns point out imperfectly also.

With regard to the *prepositions*, many children never really understand their use, and the majority of those who do, do so only when age has improved the powers of their minds. The best plan to treat this part of speech is to select, in the beginning, the most familiar instances of its peculiar use. These will be found chiefly where the relation of one object to another in regard to *place* is denoted. Thus 'The book is *on* the table,' 'My hand is *above* the desk,' &c.—these can be gradually extended, and more difficult examples can be selected, until finally an intelligent child may be expected to trace the force of the preposition, just as readily as he would the force of the easiest of the parts of speech.

How to teach the preposition.

Conjunction. It is easier for a child to understand the use of the conjunction. When it connects words, the words which it connects are apparent, because the conjunction, in the great majority of cases, is written between the two. When it connects clauses or sentences, the nature of the connection will soon become familiar if the passage be read now and then after leaving the conjunction out.

In examining a child upon this part of speech, he should be required to name the exact words connected by each, and, in the cases of sentences, he should be called upon to read the sentences, making complete sense in both, without using the conjunction in either. Thus in the sentence 'John and James ride well now, because they practised riding early,' a child should be able to say that 'and' joins the words 'John' and 'James,' and that *because* connects the sentence 'John and James ride well now' with '*they* practised riding early.'

Differences between the preposition and conjunction. He should also be able to tell the difference in use between the two connecting words, that is, between the preposition and conjunction. He should know

(1.) That prepositions connect words and show relation.

That conjunctions connect words and *do not* show relation.

(2.) That conjunctions connect sentences as well as words.

That prepositions do not.

How to teach the parts of speech by threes. In carrying out the system of teaching the parts of speech by threes, those who have learned to distinguish the first three should acquire a more extended knowledge of them during the time they are learning the others. Thus, when learning to point out the verb, adverb, and pronoun, they should learn also the *number* of nouns, their *gender*, and their *kind* (proper and common). They should learn the *comparison* of adjectives, and acquire a more intelligent knowledge of the *use* of the article, as explained in its definition, together with being able to distinguish the definite from the indefinite. In fact, they should learn, speaking generally, the leading features of the noun, adjective, and article—those parts of speech which form the first group.

When they come to the last three, they should learn in the same way the general features of the second three, while at the same time they should enter more minutely into the details connected with the first. That is, they should acquire such a knowledge of their 'parts' as would enable them to arrange these parts in their proper order, and to understand them when called upon to parse syntactically. This arrangement is called parsing etymologically, from its going so far into the details of true parsing as a mere knowledge of Etymology will allow.

When text-books should be made use of by children;

All this information must be acquired by the mere verbal expositions of the master — entirely without text-books. When the child has, however, reached this point, a text-book should be put into his hands, for he has obtained a sufficient knowledge of grammar to enable him to understand the book, and profit by what it contains.

and why.

He will receive from the text-book, in a methodised form, and therefore more advantageously, the various minute details which it now becomes his duty to acquire.

Any earlier use of the text-book would have been disadvantageous, for he had not at any earlier period acquired enough about the broad features of the science to make it judicious to attempt a systematic arrangement of his knowledge, or to hamper him with the minute details that such books contain.

Oral teaching sketches the *outline*, text-books fill it up.

The great principle is to sketch forcibly and fully, by means of oral teaching, the outline, inserting also the most prominent of the details, and leave for the text-book nothing to do but complete the picture.

Portions got off should be small.

The portions selected for each day's task should be small, and should be committed to memory at home, to be said to the master next morning. But the master should never forget to explain the text fully, both before the committal to memory, — so as to enable the child to learn it with ease and pleasure, and to prevent the formation of wrong notions,—and after it, to test how far the previous explanation had been understood, and to complete the true impression.

But the master must explain it *before* the committal,

and *after* it.

In this explanation the master should seek for difficulties where none apparently exist, and, in the test examination afterwards, he should guard against the common error of believing that a child really understands what it can repeat flippantly and accurately. This error is easily illustrated. Take, for instance, the definition of Etymology. How many will repeat it correctly, yet how few will be able to tell you fully what it means! 'Etymology treats of the derivation, classification, and inflection of words.' This they repeat readily. But from which of them will you get a correct answer to the following questions?

Must guard against the notion that a child knows what he can repeat correctly. Example.

What is meant when it is said that Etymology treats of the *derivation* of words?

What *classification* of words is alluded to?

What is meant by the *inflection* of words?

And yet, unless a child can answer these questions, he cannot possibly understand what Etymology treats of, no matter how flippantly he tells it to you in the words of the definition.

Text-books should commence with Etymology. The child should join with it the rules of Syntax.

The child should commence the text-book, as he commenced his oral lessons on grammar, with Etymology. But conjointly with it he should commence the rules of Syntax. From his previous knowledge he is quite capable of understanding them, and by beginning them at this time, they will be fully known when the pupil is about to enter upon the higher portions of the *parsing* exercise.

Many teachers teach the rules of Syntax orally also.

Many teachers—and in this I think they are quite right—even go the length of making their pupils familiar with the chief portions of Syntax by the same sort of oral instructions that they employed to make them familiar with the outlines of Etymology. One who knows the rules of syntax well himself can easily teach them to his children without the aid of a text-book. But whether the child learns them first from the grammar, or directly from the master, they must, in every case, be familiarly and clearly explained before being committed to memory.

They must be explained before committal.

Examples, *then* the rule, and not the rule and then examples.

The usual plan, at present, is to repeat the rule, and then to explain it by examples. Now, I think that the reverse order is the most correct. We should first lay before the pupils a number of examples illustrative of the general principle whose truth we wish them to perceive; we should point out to them the coincidences and points of agreement which we wish to embody in what is called a rule; we should, by judicious leading, assist them to express the real essence of this rule in their own phraseology; and we should employ for some time the rule as so expressed. After a time we should introduce them to the rule properly worded; we should assist them in applying it to other sentences; and, as the final step, we should cause them to commit it *verbatim* to memory.

Example.

Thus we say 'a boy *reads*,' 'the boys *read*,' 'a horse *runs*,' 'horses *run*,' &c.; and from these the child will see that *the verb varies with the number of the nominative*; that if the nominative be singular the verb will be singular, and if the nominative be plural the verb will be plural.

Again, we say 'thou *lovest*,' 'I *love*,' 'he *loves*;' 'I *am*,' 'thou *art*,' 'he *is*;' and from these he will learn another fact—that the verb varies also as the *person* of the nominative varies; that if the nominative be *first* person, then the verb will be first person; if the nominative be *second* person, then the verb will be second person; and if the nominative be ***third*** person, the verb will be ***third*** person also. And both of these truths he may afterwards embody in the following rule. 'A verb agrees with its nominative case in number and person,' which is Rule 1 in Syntax. This is the true system of teaching — first exemplar sentences, then the rule, then the committal to memory; but it requires that teachers should know the subject well to practise it with effect.[1]

Sentences must first be familiar.

Unless pupils know the *meaning* they cannot tell the *part of speech*.

The sentences selected to illustrate the parts of speech should be framed at first out of the easiest and most familiar words; for unless children know the *meaning* of the words they cannot tell their *part of speech*, as the one is founded entirely upon the other. The meaning is the basis of that classification which results in the Etymological division of words, called parts of speech. To ask what part of speech any word is, is but a short way of asking two other questions: (1) What is the use or force of the word in the sentence? and (2) what is the technical term expressive of that use? And many children are set down as unable to tell the technical terms when, in reality, their fault lay in ignorance of the *use* of the words. Had they known the meanings of the words, they would have told the parts of speech freely and correctly enough.

Lesson books may next be used as the text for the grammar lesson.

When the pupils have gone through the lesson books so as to understand fully the force of the language made use of in them, they may be called upon to point out the parts of speech as they occur in any ordinary sentence selected. They may be either called upon to name all the nouns, verbs, adjectives, &c., or they may classify each word in the order in which it is met with.

Test questions on definition.

The following may be taken as test questions on the definitions:—

---

[1] See Min. of Council, 1846-7, vol ii. p. 101.

What part of speech is used in *naming* objects?

What part of speech is used in *describing* them?

What part of speech is a word that *stands for* a noun?

What part of speech is used to lessen the number of objects to which the noun is applicable?

What part of speech is used to qualify an adjective?

What part of speech is used to qualify a verb?

What part of speech is used to express an action?

What part of speech is used to modify an adverb?

What part of speech is used to modify any qualifying word?

What part of speech is used to join words and show no relation?

What part of speech is used to join words and show relation?

What part of speech is used to join clauses? sentences?

What part of speech is used to express sudden emotion?

What joining words do not connect sentences?

&c. &c. &c.

Parsing.

We now come to *parsing*. To parse a word fully we must (1) state its *part of speech*; (2) its several grammatical *parts*, if any; and (3) the connection it has with any other word in the sentence. The first two steps depend entirely upon Etymology, and ought to be learned, as I have said before, chiefly from the oral teaching of the master: the third step depends upon Syntax, which is generally learned from the text-book. The first step, when taken separately, is sometimes called Simple Parsing; the second, when taken in connection with the first, Etymological Parsing; and the parsing which includes the three is called Syntactical Parsing.

Different kinds of Parsing.

The following sentence, 'Our cotton dresses are formed from the soft lining of a seed vessel,' is parsed as follows, so as to illustrate each of these three kinds.

SIMPLE PARSING.

Example of Simple Parsing.

Our, is a pronoun;
cotton, is an adjective;
dresses, is a noun;
are, a verb;
formed, a verb;
from, a preposition;
the, an article;
soft, an adjective;
lining, a noun;
&c.

In this kind the child gives merely the part of speech of each word; he must be able, however, to give a proper reason, when called upon, for what he says. This sort of parsing is very simple in form, but a great deal of judgment is required to avoid errors in it; and as it is at the foundation of all the others, too much attention can scarcely be paid to it.

ETYMOLOGICAL PARSING.

To parse the same sentence Etymologically, we would say:

Example of Etymological Parsing.

Our, is a pronoun, *of the possessive adjective kind* (or simply a possessive adjective pronoun);
cotton, is an adjective, *not admitting of comparison*;
dresses, is a noun, *common, third person, plural number, neuter gender*;
are formed, *a regular passive* verb, *indicative mood, present tense*;
from, a preposition;
the, an article, *definite*;
soft, an adjective, *positive degree of comparison*;
lining, a noun, *common, third person, singular number, neuter gender.*

The words in italic show the difference between Simple and Etymological Parsing. The one contains the other, but adds to it the *accidents* of each word. The *case* of nouns, and the *number* and *person* of verbs, although Etymological parts, are left out because they are scarcely definable, except in connection with other words in the sentence, and are determined by rules of Syntax.

[illegible] ques- [illegible] it.

In Etymological Parsing the child must be able, when called upon, to answer such questions as the following, in addition to those already required for the previous kind.

1. What is the difference between pronouns of the possessive adjective kind and personal pronouns in the possessive case?

2. Name the possessive adjective pronouns.

3. Name the personal pronouns in the possessive case.

4. What is meant by degrees of comparison? When are adjectives in the positive degree? When in the comparative? When in the superlative? When are they said to admit of no comparison? How are the comparative and superlative of adjectives formed? &c.

5. When is a noun said to be common? When proper? When singular? When plural? When neuter gender? When masculine? When feminine? or common? How is the plural formed? How is the feminine formed? &c.

6. When is a verb said to be passive? regular? irregular? What part of the verb 'form' is used in the tense 'are formed?' What other part of a verb enters into composition with an auxiliary? Analyse the tense 'are formed.' Which of the two shows that the verb is passive? Which that it is regular? &c.

It is easy to judge from the children's answers to such questions as these whether they know the subject mechanically or intellectually.

SYNTACTICAL PARSING.

Example of Syntactical Parsing.

The following is an example of the syntactical mode of parsing:—

Our, a pronoun, *of the possessive adjective kind*, REFERRING TO DRESSES;

cotton, an adjective, *not admitting of comparison*, DESCRIBING THE DRESSES;

dresses, a noun, *common, third person, plural number*, *neuter gender*, AND NOMINATIVE CASE TO THE VERB 'ARE FORMED;'

are formed, a verb, *passive*, *indicative mood*, *present tense*, THIRD PERSON, PLURAL NUMBER, TO AGREE WITH ITS NOMINATIVE CASE 'DRESSES;'

from, a preposition, GOVERNING THE NOUN 'LINING;'

the, an article, *definite*, LIMITING THE SIGNIFICATION OF THE NOUN 'LINING;' &c. &c.

The part in small capitals is peculiar to Syntactical Parsing; the part in italics refers to Etymological Parsing; and the remainder is Simple Parsing. We thus see that Syntactical Parsing includes the other two. Those who parse by this method should therefore be able to answer all the questions already given for the other two, and, in addition, questions similar to the following, which may be said to be peculiar to itself:—

Test questions.

1. Repeat the rule of Syntax relating to the words 'our' and 'cotton.'

2. When is a verb said to be first, second, or third person? When singular? When plural?

3. Repeat the rule of Syntax about the government of the word 'lining,' &c. &c.

How to quote rules of Syntax.

In quoting these rules, *in support of their previous statements*, the children should only quote so much of them as actually applies. Thus, in the phrase 'which he loved,' the word 'which' is the objective case governed by the verb 'loved,' by the rule that says, 'When a nominative comes between the relative and the verb, the relative is governed by the verb following;' the remaining part of the rule, 'or by a noun following, or a preposition going before,' is left out as inapplicable in the present case. The skill which they display in selecting what is appropriate shows clearly whether they know the rules thoroughly or not. Of course this method refers merely to the rules quoted as *proofs*. When the object is to examine upon Syntax without any connection with a previous parsing exercise, the entire of the rule must be given, and in the exact words of the author.

Too many forms of Syntactical Parsing.

In my opinion, there are too many forms of Syntactical Parsing. We have, for instance, Murray's method, in which the tenses of the verb are arranged on the plan of the Latin language; and we have what is called the English method, where the tense is subdivided into the present and the past only—all compound tenses being reduced to either of these forms prefixed to the infinitive mood, or to the participle of the verb. In my opinion, there should be but one form, so that a child leaving any school for another would not be obliged to unlearn what he had already acquired.[1]

Murray's the best, when extended as explained.

The form of Parsing of which I approve has been already given. It is an extension of Murray's method, but it is not fundamentally different. The extension is adopted to render the parsing more definite and exact. Parsing, as generally practised, consists merely in naming the part of speech and a few of the leading parts of the principal words, as the noun or verb, omitting altogether the connection existing between the words, except in the case of the agent and verb, or verb and object. Most pupils would say, for instance, in the above sentence, simply that 'our' is a pronoun, 'cotton' an adjective, 'from' a preposition, &c.; but, as I have shown before, these answers are too indefinite, and require to be limited by pointing out the exact meaning to be attached to them in each particular case.

Dr. Sullivan's opinion

Dr. Sullivan, although he adopts the English method in his own text-book, highly approves at the same time of the old, or Murray's method, and in support of this.

---

[1] Mr. Cook complains of the variety of forms. He says (Min. of Council, 1855–6, p. 751): 'This great evil calls for a remedy,' and suggests the adoption of one grammar in the training schools.

See also Min. of Council, 1855–6, p. 650, and 1857–8, p. 650.

recommends his own to be used only as an introduction to it. He says: 'This method is not really opposed to what is called Murray's or the old method. It should rather be considered as introductory to it; and it is in fact, to a certain extent, the same. . . . These forms (the Latin forms as given by Murray) will be found in this little grammar; and the writer takes this opportunity of stating that he prefers them to any which have been proposed by subsequent writers, both because Murray is in himself an excellent authority on the subject, and because his views are in accordance with those of our best grammarians.'

Parsing without technical terms, shows the elaborate history told of each word.

Parsing gives a very elaborate history of each word, though, from the use of technical terms, this might not seem to be the case. A glance, however, at the two forms of parsing given below, the one with and the other without technical terms, fully establishes the fact.

Example.

John, is a noun,	is either the name of a person, place, or thing;
proper,	it is applicable to but one individual in the same sense;
third person,	the object for which the word stands is spoken of;
singular number,	it is applied to but one person;
masculine gender,	the individual for which it stands is of the male sex;
nominative case to the verb 'leaps.'	the object for which it stands creates the action expressed by the word 'leaps;'
Leaps, is a verb,	it is a word used to express action;
regular,	the form which expresses past time is formed from that which expresses present time by the addition of 'd' or 'ed;'
transitive,	the action expressed by the word affects, or is received by, some object;
indicative mood,	the action is simply said to take place; no conditions under which it takes place are mentioned;

third person,	that which creates the action is spoken of;
singular number,	that which creates the action is but one object;
agreeing with its nominative case 'John.'	some of the parts of the word used to express the action are selected with reference to some of the parts of that which created the action.
A is an article,	It is a word used to lessen the number of objects to which the name of anything can be applied;
indefinite,	it diminishes the number of objects to what is contained in a *class*, but does not point out any one object particularly;
referring to the noun 'horse.'	its particular force (expressed above) is applied in this case to the word 'horse.'
Horse is a noun	(See John, above);
common,	it is applied to more than one object in the same sense;
third person, singular, masculine gender,	(See John, above);
objective case, governed by the verb 'leaps.'	the object expressed by the word 'horse' receives the action expressed by the word 'leaps;'
Well is an adverb,	it is a word which may be used to modify an action, or the force of any qualifying word;
qualifying the verb 'leaps.'	in this case it is used to modify the action expressed by the word 'leaps.'

What is to the right of the vertical line is the same in meaning exactly as what is to the left of it; but how elaborately expressed in the one case, and how briefly in the other!

Parsing without technical terms is an admirable exercise. It may be practised at home, and brought next day for inspection; or it may form a desk occupation occasionally in the school-room. It will teach the pupils to think upon the nature of what they say about each word, and it will prove to them that, although technical terms can be wholly dispensed

This is a good exercise for school or home.

with, yet it is chiefly by their aid that we are enabled to express ourselves with brevity.

The chief difficulty of parsing is in determining the *meaning* of the passage.

A glance at the forms of parsing already given will show that the difficulty is almost entirely with the *meaning* of the passage. There is, of course, the difficulty which beginners always feel in naming correctly and in proper order the several parts of each word, and in pointing out the dependence of one word upon another—a difficulty which they feel even when the words are arranged in the simplest logical order: but when once this, which may be called the mechanical portion of parsing, is overcome, the difficulties experienced arise from determining the meaning of the passage itself.

Teachers fail from not being able to discover the sense.

The remedy is not in a grammar, but in reading standard works,

Most teachers fail in parsing a sentence from mistaking its sense. Passages from Milton, Shakspeare, and others, are, to many of them, as so much Greek, and of course they are wholly unable to construe them. If these wish to succeed, the remedy is in their own hands. They must not fly to the treatise on grammar, as they generally do, and study it anew, but they must take up standard works both of prose and verse, and read them attentively and thoughtfully, noting the peculiarities of style adopted in each.

or good extracts, like the 'Selections from the British Poets.'

If these books are not within their reach, books which contain well-selected extracts will suffice. The Reading Books ordinarily used in schools contain several very good specimens, but I do not know of any better book for this purpose than the 'Selections from the British Poets,' published by the Commissioners of National Education in Ireland. These selections are made with great taste and judgment, and are well calculated to make the student acquainted with the style of the various authors quoted from. A person who studies this book carefully will rarely fail in determining the meaning of a passage placed before him, and therefore, if he but know the mechanical portions, he will rarely fail in parsing it.

This study will improve the mind and character.

But the study of such a book will have an effect beyond this. The rich abundance of new and attractive ideas, and the familiarity thus created with the many religious, moral, and pleasing images scattered through its pages, will both enlarge the mind and improve the general character.

Ellipses, analysis, &c., necessary to determine and preserve the sense.

The meaning of any passage will be easily detected by children if they are in the habit of filling up ellipses, analysing, and transposing sentences under the immediate superintendence of their teachers. Before parsing, they should be called upon to supply all words left out, and to analyse and transpose the parts of the sentence so as to disclose their true grammatical or logical order, and make the meaning clear.

Advantage of analysis.

Analysis, when properly carried out, makes the parsing exercises intelligent; it makes thought definite; and it gives precision and accuracy in the use of language.[1] By it we acquire the power of dealing with the logical construction of propositions, and with the various grammatical forms, and of applying them to the discovery of the meaning of what we hear or read. Analysis is, in fact, the great instrument for the discovery of the true force of words in accordance with the order in which they are arranged, and an acquaintance with it is essentially necessary, not only for parsing, but for making language effectual as a means of communicating ideas.

Learned terms unnecessary.

The learned and cumbrous terms, however, which are so often met with in treatises upon the Analysis of Sentences, are in all cases unnecessary and hurtful. Such expressions as the 'subject enlarged,' the 'adjunct,' the 'complete predicate,' the 'predicate itself,' 'accessory sentences,' 'subordinate accessory sentences,' 'illative sentences,' 'antithetical sentences,' 'subordinate adverbial sentences,' 'abridged subordinate adverbial sentences,' are not only difficult to understand, and impossible to remember, but they

---

[1] Min. of Council, 1859-60, p. 140.

Not essential.

are, happily, quite unnecessary. They are not essential to the real and proper analysis of sentences—they are, in fact, mere conventional expressions, which a pupil may know without being able to explain what it is they are intended to convey, and which many may be entirely ignorant of who yet may employ the principles of analysis efficiently and effectually to the discovery of the meaning of each passage. A child, for instance, may be able to see that the sentence, 'although clever, he makes no progress,' is equivalent to 'although *he is* clever, he makes no progress,' without burdening his understanding with the fact that such a sentence is called by some writers 'an abridged subordinate adverbial sentence.'

Jargon instead of sense.

Mr. Alderson's opinion that they are injurious with regard to females.

Pupils who are taught these terms very often lose themselves in an unintelligible jargon, and know nothing clearly of what the terms really mean. Mr. Alderson, after showing that the extensive use of technical terms is an evil in the case of boys, says, 'With regard to females such a course is certainly injurious. The female mind is prone to take refuge from precise or concentrated thought in a haze of vague generalities and cloudy phrases; and this tendency is fostered to a dangerous extent by the technical language with which they come in contact in the analysis of sentences.'[1]

All that is really required is to help the children to collect the meaning.

All that is really required is to help the children to collect the true meaning by arranging the clauses in their natural order. There is not the slightest use, in the majority of cases, to give any name either to the clauses themselves, or to their subdivisions or arrangements. And to practise them in this arrangement, I recommend that the words of each sentence should be parsed, not as they actually occur, but as they would occur if logically arranged. Take, for instance, the following sentence: 'Rice, we are told, grows luxuriantly in portions of

---

[1] Min. of Council, 1860-1, p. 177.

America.' '*We are told*' should be parsed first; '*rice*,' next; '*grows luxuriantly*' next; '*in portions of America*' last.[1]

When small words may be passed over. Dr. Woodford.

In the earlier classes every word should be parsed; but as the pupils advance, words of frequent occurrence need not be parsed more than once. Dr. Woodford treats of this matter so fully and so well, that I cannot do better than quote his words. He says:[2] 'The common method of parsing is to give every word straight on, with all its repetitions, with or without mention of its syntactical relation. Now the constant recurrence of 'THE,' *the definite article*, 'A' or 'AN,' *the indefinite article*, AND, a conjunction, and OF, *a preposition*, occupies much more time than could be supposed without calculation.

'In four pages and two lines of M'Culloch's "Course of Reading," in passages not likely to exceed the average use of these words, the total number of words, including repetitions, is 1,439; of this number "*the*" is 107, "a" or "*an*" 45, "*and*" 52, and "*of*" 82; that is, *the* is more than a thirteenth part of the whole, *a* or *an* a thirty-second part, *and* more than a twenty-seventh, and *of* more than a seventeenth: and, combinedly, the repetition of these words is more than one-fifth of the whole. Now, supposing the parsing exercise of a class to occupy half an hour daily, for five days in the week, this class will be engaged half an hour weekly in proclaiming "THE" *the definite article*, "A" *the indefinite article*, "AND" *a conjunction*, and "OF" *a preposition*. If to "and" we add *but*, *if*, *or*, &c., and to "of," *to*, *for*, *with*, &c., it will be found that the useless repetition of such familiar words occupies about one-third of the whole time spent in parsing. Now,' he adds, 'after the first week of general parsing, it might be sufficient to parse each of the conjunctions and prepositions, as they occur, once in each lesson, and seldomer as the class advances, and requires to be rendered familiar with additional steps.'

---

[1] See Min. of Council, 1852-3, p. 1,109; 1856-7, p. 573; 1857-8, p. 650; 1859-60, pp. 140, 266, and 441; 1860-1, p. 97; 1861-2, p. 132.

[2] Min. of Council, 1852-3, p. 1,108. See also his remarks, 1855-6, p. 651.

My remarks might now end were it not that I think the present methods are unsatisfactory.

Up till now I have been giving suggestions for the teaching of grammar in accordance with the plans most generally approved of, and did I also think that these plans were the most correct, there would be but little else for me to add in this chapter; but, as I am of opinion that even these plans, though decided improvements upon those they superseded, are still by no means the best, it becomes my duty before closing to point out what I consider are their defects, and to suggest remedies.

Text-books not properly used.

Although the use of the text-book is properly deferred now until the pupils have acquired, by oral teaching, the ability to understand and profit by what it contains, yet, when they are permitted to study the book, they are allowed to do so very much in the same way that they were in the former system. They begin at the first page, and commit all of it to memory until the end, and thus waste much time upon Orthography and other portions of the subject that appear to me to have but little to do in attaining the great end in view. They are obliged to commit to memory, for instance, a great many rules about *vowels*, *consonants*, *diphthongs*, *tripthongs*, *mutes*, *liquids*, *labials*, *nasals*, *palatals*, *gutturals*, *monosyllables*, *dissyllables*, &c.; but how can these possibly help a child 'to speak or write his language with propriety,' which, in common school education, is all that grammatical instruction should aim at! Children may know these rules, and in fact all that is treated of under the head of Orthography, and yet still say 'John and James is here,' 'Them 's his books,' 'The hare has ran away,' or 'They done it.'

Orthography not necessary in it.

I certainly am inclined to think, though in this of course I may be wrong, that very few of the many admired speakers in Parliament, or even in the

Church or at the Bar, could repeat correctly and readily the letters called semi-vowels. Why, therefore, should children, on pretence of teaching them to speak as purely as these men, be obliged to learn what these men have thrown aside as useless? If, indeed, this knowledge were essentially necessary in order to understand those parts of grammar that are practically valuable, then indeed we might have a reason for teaching it; but it has no connection whatever with Etymology, or with Syntax. Orthography is, in fact, a part of *grammar*, only in the most extended signification of that term. The forms and sounds of the letters, and their classification, belong to a regular treatise on language, and they have as much right to be included in a practical school grammar — a work designed to teach us to speak and write correctly, that is, in accordance with certain recognised forms contained in the rules of Syntax—as the alphabet itself has. To teach us these appears to me to be as wide of the practical object in view as if a writer on Political Economy, before treating of the laws of demand and supply, gave a classification of the different sorts of paper, silk, or cotton, &c.

Parts of Etymology should also be left out.

With regard to Etymology, some knowledge of it is clearly requisite, for, without it, we could not understand the rules of Syntax. For instance, to say that a noun in any given number requires that form of the verb which is in the same number and person (which is one of our guides in speaking), would convey no idea to our minds unless what was meant by the terms *noun*, *verb*, *number*, and *person* was understood; and although we might express the same sense without the use of these words, yet it would be at the expense of too much time and clearness. But there are several parts of Etymology just as inapplicable to the great end in view as Orthography is. Thus, what has the division of nouns into *real* and *abstract*, into *participial*, *collective*, and *diminutive*, or what have certain rules about the words *very*, *rather*, *exceedingly*, *compound substantives*, *compound adjectives*, *cardinal and ordinal numbers*, &c., which are found under the head of Etymology in most grammars, to do with teaching us to frame a correct sentence? We may know them, and speak badly: we may not know them, and yet speak well. They should, therefore, be entirely omitted; so also should be the whole chapter on Derivations, on English Etymologies, on the History of the English Language, on Latin and Greek Roots, and for the same reason: all these should be included in a work on Language, but not in a practical school grammar.

Parts of it should be reclassed.

On the other hand, however, there are many things included under the head of Etymology that should be grouped, with the present rules of Syntax, under one division, which might be called 'Rules of Speech.' For instance, the rules to guide us as to the selection of the article, or the following rules: 'The word "gallows" takes a singular verb;' 'The word "news" takes a singular verb;' 'Sciences whose names end in *ics* generally take a plural;' or the rules about personification, about the use of *shall* and *will*, about the prepositions which certain words require after them, &c., should all be removed from the head of Etymology and placed as 'Rules of Speech.'

Syntax should be enlarged, and embrace all rules of speech.

Syntax should be enlarged, and should be made the most prominent part of the book, as it is in reality the most valuable. In most grammars it is in reality enlarged; for many rules included under it at present relate neither to *concord* nor *government*, the only two parts it allows of: but as this arises from the carelessness of the writers, it is not the enlargement of which I speak.

Etymology should be taught solely in reference to it.

A treatise such as I recommend would contain but the two parts — Etymology and Rules of Speech — Orthography and Prosody being laid aside as not bearing upon the object in view; and the Etymology would be treated of solely in reference to the other head.

How to teach the rules of speech.

To teach the second part properly, the master would be obliged to know its rules off: he should have a ready tact in framing sentences to illustrate them; he should be able to point out errors wherever they occur; and he should get his children to do so too. By this means the rules would have a practical bearing upon the speaking of both pupils and teachers.

Examples will be frequent in the speech of the children.

Unfortunately, the lower orders speak so vulgarly and incorrectly that there will be no loss for examples of errors frequently occurring, to whose correction the Rules of Speech could be advantageously applied. No instance of violation of the true forms of language should on any account be passed over unchecked; and, when checked, the true sentence should be so frequently repeated that a similar error would not be likely to occur again. Mr. Cook says[1] that, 'In the schools of Germany the teachers make every lesson a practical exemplification of the use of language. They allow no answer to be incorrectly worded without interrupting the course of the lesson; they rapidly turn the phrase so as to impress upon the pupil's memory, not only the right form, but the subject matter.' He adds that, 'this is much neglected in our country; and I have frequently found boys and girls of twelve to thirteen, who have remained under instruction four or five years, able to read and write correctly, and to repeat all the rules of grammar, but unable to express the simplest ideas in tolerable English.'

Practice in Germany as described by Mr. Cook.

It would be the duty of the teachers to understand these rules thoroughly, and to acquire proper skill in applying them to the correction of faults and vulgarities. Without this, their teaching would be barren and unsatisfactory.[1]

---

[1] Min. of Council, 1852–3, p. 321.

Complete accuracy cannot be produced by rules only.

These Rules of Speech would be admirable aids in acquiring the habit of speaking grammatically, and, when properly made use of, they would be found to produce great correctness; but I am under the impression that *complete* accuracy is not attainable by any set of rules whatever, no matter how well they are understood, or how diligently and skilfully they are applied to actual speech.

We speak by what we hear and read.

We speak very much by ear; the form of our sentences, and even the choice of our words, depend very much upon what we are in the habit of hearing and reading. If sufficiently fortunate to be placed among educated and refined people, our language will insensibly show this; while if, on the other hand, our lot is not so happily cast, the taint will be quite as easily perceptible. How often do we hear errors excused thus: 'I know I am wrong, but I spoke without thinking;' or 'I know the rule well enough, but I forgot it just now'? If we reflect carefully upon these answers, we shall see the inadequacy of rules to guard us against all faults. We should learn also not to value their aid too highly, for those who know them best, as teachers, too often find a difficulty in bringing them to bear upon their speech;[2] while, on the other hand, many of our

---

[1] See also Min. of Council, 1845-6, p. 144; 1856-7, p. 239.

Rev. Mr. Brookfield, Min. of Council, p. 507, 1854-5, says: 'The better instructed children acquire its principles *unconsciously*, by reading and writing under the correction of their teachers. I have not, therefore, thought it needful to perplex them much about the abstract rules and theory of a science which is so little fixed.

[2] Dr. Woodford, Min. of Council, 1852-3, p. 1,110, says: 'Not a few of the teachers have allowed the use of provincial and ungrammatical forms of expression, false pronunciations, and vulgarisms, to become so *familiar* to them, that they have ceased to be conscious of it, and habitually counteract their instructions by their own example.'

Mr. Cook, 1848-9, vol. i. p. 51, says: 'Most of them apmost correct speakers must have forgotten them since their school-days.

Teacher must set a good example.

To speak well, therefore, we must not come much in contact with faults and vulgarities; and hence it is the duty of teachers, above all things, to present to their children, in their own persons, examples which they will imitate with safety; and this is especially the case with teachers of the poor, where theirs is the only good example the children are likely to receive.

Teachers should read good authors.

Where teachers are conscious of their own defects, they should at once adopt the best practical means for removing them — the study of good authors; they should read much, especially aloud, so that the eye, the ear, and the mind, may become trained to what is correct; in fact, they must become so thoroughly imbued with what they read, that they will insensibly think and speak in the same forms. This will not be found to require much special study. Special study, comprising the analysis of forms and the comparison of styles, will, of course, materially assist; but mere reading—thoughtfully and intelligently of course—will in the end insensibly bring them to express themselves in the same forms as are thus made familiar to the eye and brain.

Cheap literature will improve the speech of the people.

The cheap literature of the present day is likely, therefore, not only to prove a powerful agent in the instruction of the people and in their amusement, but in making them speak and write grammatically.

---

pear to find it difficult to bring the rules of grammar, which they really understand very well, to bear practically upon their habitual language. Early habits, and association with uneducated persons, counteract the theoretical knowledge which they acquire at school.'

Mr. Brodie, 1860-1, p. 189, says: 'Copious instances which could be selected would disclose not merely ill-formed sentences, misapplied, incomplete, or inexact expressions, bad punctuation, but far worse, grammatical offences; namely, singular nouns agreeing with plural verbs, and the opposite, the faulty construction of prepositions, wrong use of adverbs, wrong and excessive use of both pronouns and conjunctions.

Extract from 'The Times' to show that we speak as we read.

The following extract from 'The Times' of December 7, 1861, is laid before my readers, to sustain what I have just said upon the inadequacy of rules, and upon the necessity which exists for reading much :—

'Grammatical accuracy was acquired, not by the recollection and use of an infinity of rules, complicated by an infinity of exceptions, but by familiarity with good authors. Grammar, *like spelling*, comes instinctively from judicious reading and cultivated memory. Nobody would think of turning to an English grammar for aid in the composition of a sentence, any more than he would think of getting a dictionary by heart in order to secure the accuracy of his orthography. A few salient points may be indicated as the student goes on, and a general conception of grammar may be built up gradually as the language is mastered; but to plunge into this complex system of rules at the outset is simply to throw time away, and to confuse the understanding altogether.' The writer then adds: 'Mr. Bright M.P. was perfectly justified in saying that it is very difficult for any person who reads well-written books, and understands them, not to acquire a very competent knowledge of grammar.'

Mr. Bright's opinion.

Must also practise written composition.

Frequent practice in actual composition is necessary, however, to give facility in expressing oneself on paper. This is a portion of grammar scarcely at all introduced into primary schools, very much to the detriment of the true interests of the children.

Of what advantage will our learning be unless able to communicate it freely and clearly, and, so far as letters are concerned, in the proper forms recognised by society ?

We are called upon to make use of written composition at almost every turn. We cannot conduct a business so as to reap its full advantages, we cannot succeed in a profession, or even in the lowest offices of the State, without being able to express ourselves in writing with clearness and correctness.

This exercise generally forms a part of the course of education in higher class schools; but whatever its value may be in these, it is much more valuable in schools for the poor.

Especially in poor schools.

Children of the wealthier classes are necessarily obliged to practise composition. At their entrance into life they are compelled to make use of it, while their constant intercourse with the world forces them to continue it; the child of the poor man, however, is very differently situated. His social relationships seldom oblige him to exercise this skill, and therefore, unless composition has been made a pleasure to him, it is not likely that he will continue to make use of it. In this respect it is like reading; unless done with ease it is not done at all.

Secondary advantages of composition.

But composition has the additional advantage, when properly taught, of producing clearness of thought and precision of speech—advantages which it is impossible to over-estimate, and which children can scarcely secure for themselves if unaided. Professor Butler, speaking of the teachers' written exercises for 1850, says: 'To the habitual negligence of and want of regular practice in composition, are to be attributed the looseness and inaccuracy of expression, the grammatical errors, the numerous defects of style, which are observable throughout the exercises.'

When it may be taught.

Teachers must, therefore, carefully practise this themselves and teach it to their advanced classes. It can be made occasionally to take the place of the ordinary dictation lesson, or it can be made a good home exercise—the child bringing the paper next day for revision. Once or twice a week would be sufficient, provided that proper care and earnestness were exercised.

How it can be taught.

There are many ways in which children may be accustomed to express themselves in writing. They may be required to write answers to easy questions. They may be required to write out the substance of an easy fable, or of a short lesson previously read over and explained to them. They may be required to write down what they have learned from any of their daily lessons. Or they may be called upon to describe in their own words what they frequently see—as *grass*, *potatoes*, *cattle*, *trees*, *the town or country in which they live*, &c.

areful vision ust be ept up.

But no exercises will teach composition effectually unless carefully examined and corrected by the teacher. It is in the method of examining them that success or failure lies. No pains should, therefore, be spared in this. The corrections should be plain, and should be made intelligible to the children.

A second trial should always be given. For instance, if any sentence be incomplete, if the pronouns be not properly used, if the construction be confused—all errors to which beginners are very liable—the nature of the error should not only be written on the exercise itself, but the pupils should be called upon *orally* to frame the sentences better, and then they should be called upon to do so in writing.[1]

Vhy hildren lislike this xercise at resent.

Children generally have a distaste for this exercise, but that principally arises from their being called upon to write about what they know little, and from their first efforts being too strictly criticised. The subjects should be familiar, and the pupils should be encouraged to say whatever comes into their minds, whether good or bad, the great thing being to secure at the outset the power of expression: polish can be secured afterwards.

---

[1] 'The Prussian teachers, by the constant habit of conversing with their pupils, by requiring a complete answer to every question, by never allowing a mistake in termination, or in the collocation of words and clauses, to pass uncorrected, nor the sentence so corrected to pass unrepeated, by requiring the poetry of the reading lessons to be changed into prose, *oral* or *written*, and the prose to be paraphrased or expressed in different words, and by exacting a general account or summary of the reading lesson, are, we may almost literally say, constantly teaching grammar.'—*Horace Mann.*

I think it a judicious course for the teacher to tell the children at first the '*heads*' of what he wishes them to write about. The exercise, by being thus broken up into definite portions of thought, will be much easier, and, of course, much better and more profitably performed.

Do not allow pompous or inflated language.

Above all things, however, let them write plainly: diligently put down all high-flowing expressions; the thoughts may be full and rich, but the language should be plain.[1]

Grammar is an intellectual study.

In conclusion, I may state that, from all I have written, it appears that grammar is not treated as it ought. The treatment of it, like the treatment of arithmetic, is too routine and technical; but inasmuch as grammar is more purely intellectual[2] than arithmetic, it is, in proportion, worse taught. In fact, the more any subject appeals to the judgment and the reason, the less is known of it. Rote teaching in such cases supersedes carefully-arranged instruction, and pupils guess instead of think.

Such subjects are certainly more difficult than others; but, as if to compensate for this, they are, when once known, the least likely to be forgotten.

But it may

But although grammar is a subject eminently still be introduced early.

---

[1] 'The greatest defect was in the use of far-fetched and high-sounding expressions, often inappropriately employed. It is one to which imperfectly educated persons are peculiarly liable; its absence is one of the surest signs of a finished education and disciplined mind.'—*Mr. Moseley, Min. of Council*, 1847, vol. ii. p. 408.

See also in reference to composition, Min. of Council, 1845-6, vol. ii. p. 31; 1848-9, vol. i. p. 51; 1857-8, p. 246; 1860-1, p. 266; 1861-2, p. 157.

[2] 'Grammar accustoms the mind to reflect more than any other department of primary instruction whatever.'—1848-9, vol. ii. p. 172.

'It is the best study for drawing out the intelligence of the children.'—*Education Commissioners*, vol. vi. p. 214: 1861.

requiring 'head-work,' yet it is rightly introduced into the school course at an early period;[1] for when properly taught, many of its leading facts, and many of its most valuable qualities, can be made available for the improvement of the youngest children.

In fact, you can scarcely begin grammar too soon, provided you begin it properly; for to teach the *grammar* of a language is merely to teach the *sense* of it. 'Whatever words make *grammar* together, make also *sense* together, and whatever words make *sense* together, make also *grammar* together.' Neither can we regard it as a mere accomplishment, such as music and drawing, but we must look upon it as an essential portion of even the poorest education, and therefore as much a part of the course in the lowest National School as in the highest College.

It is not, like music, an accomplishment.

The son of the peer and the son of the peasant, if they learn to read at all, must equally learn to know what words make sense together and why they make it.[2]

Derivations—

What is called 'derivations' generally forms a part of grammatical teaching; but so far as I have ever seen, the result has been of scarcely any practical value. I do not, therefore, lay much stress upon the teaching of this part of Etymology, for to teach it effectually requires not only a thorough knowledge of the relation of words, but an accurate acquaintance with the languages from which the roots are derived, and this the majority of our teachers do not possess. The Rev. Mr. Cook agrees with me. He says,[3] 'The appearances are very often illusory: a master must be very well educated to avoid mistakes, leading to

not of much value practically in the hands of men who do not know classics.

Mr. Cook.

---

[1] See Min. of Council, 1848-9, vol. ii. p. 471, and 1855–6, p. 647.

[2] Grammar essential. See Min. of Council, 1852–3, p. 1,164.
Education Commissioners 1861, vol ii. p. 17.
Grammar, most important. See Min. of Council, 1855–6, p. 617.
Grammar, advantage of. See 1861–2, p. 133.
Grammar a good test of teacher's powers. See 1855–6, p. 618.

[3] Min. of Council, 1845–6, vol. i. p. 144.

strange perversions of sense; I should deprecate its introduction into schools conducted by masters and mistresses who knew nothing of the language to which they must refer.'

Again he says in his report for 1852, p. 321: 'The Latin and Anglo-Saxon roots found in grammars, or the facts connected with the formation and transition of the English language, though interesting, are learned with little mental exertion, and are not of much practical value.'

Mr. Mitchell.

Mr. Mitchell says:[1] 'To obtain any *real* knowledge of Etymology demands a more extensive acquaintance with other languages than is to be found among our pupil-teachers.'

Mr. Bellairs approves of.

Several inspectors, however, speak in favour of this study. Mr. Bellairs says:[2] 'Constituted as the English language is, so much of it being derivative, the omission cannot but be important; for it will frequently be found that the key-word of a sentence is one which cannot fully be understood without reference to its root; and in the writings of the best authors it may, I believe, be generally discovered that, although the leading ideas are connected by words of Saxon origin, and which, therefore, are much the most numerous, the ideas themselves are stated in words derived either from the Greek or Latin language.' See also Mr. Moseley's remarks, Min. of Council, 1847–8, vol. ii. p. 443.

Applied with advantage to *technical terms*.

I have myself seen it applied with advantage to the discovery of the meaning of technical terms. These are generally formed of almost unchanged words of Latin or Greek, so that a knowledge of the original words very often produces clearer ideas of the terms than what can be produced by simple definitions.

When taught it must not be taught by *rote*, but where

When this subject is, however, introduced, the teachers must avoid treating it too much as a rote exercise. The words should not be got off by prefixes &c. occur in the reading lesson.

---

[1] Min. of Council, 1852–3, p. 628.

[2] Ibid. 1845–6, vol. ii. p. 188.

heart from certain lists, any more than their 'meanings' should be got off from the columns of the dictionary. The force of each prefix, affix, &c., must be taught where it is actually applied in the ordinary text of the reading lesson.

What proficiency should be aimed at.

To be considered proficients in this subject, the children must be able to tell what *prefixes*, *affixes*, and *roots* are; and must be able to give the meanings of those most frequently used, or, from being given the meaning, they must be able to name in each language, where possible, a prefix, affix, or root corresponding to it. They must also know the chief *roots*, their meaning, the language from which they are taken, the parts which enter into the composition of English words, and be able to give examples of words formed from them. They must, however, in a special manner, be able to trace the meaning of the word from the meaning of the root, for in many cases the connection between them is, by no means, very plain. Thus the *root* of 'explore' is *ploro* to weep, but between *weeping* and *exploring* there appears to be no connection whatever. It is the duty of the master to point out this connection, and to make his children understand it fully. From inattention to this, some very absurd mistakes are made; as, for instance, I was told lately that 'carnivorous' came from *carnivis* flesh and *oro* to beg, and that *disaster* came from *dis* asunder and *aster* a star. It is a very good plan to make the pupils give the meanings in terms of the root and prefixes &c. Thus, instead of saying that to be *unanimous* means to *agree* together, the children might, when tracing words to their roots, say that *unanimous* meant to be of *one mind*—to have, as it were, the *same mind*—and therefore to agree.[1]

The connection between the meaning of the *word* and the meaning of the *root* must be shown.

Meanings ought sometimes to be given in terms of the *root*.

---

[1] Mr. Fletcher says, Min. of Council, 1846–7, vol. ii. p. 89: 'They give the roots of words, and the meanings of those roots, without at all impressing strongly upon the children's minds the meaning of the derivative itself; and hence the root and its meaning, instead of helping to define and fix the sense of the derivative, has helped only to confuse it.'

CHAPTER VII.

GEOGRAPHY.

WE may teach geography either synthetically or analytically. We can either begin with general views of the whole surface of the earth, and descend gradually to the most minute description of each portion of it, or we can, on the contrary, set out from the spot on which we stand, describing the school and school-grounds, then the immediate neighbourhood, then the townland, the parish, barony, county, country, &c. &c.; each new subject being more extended than its predecessors, until, in the end, we embrace the whole world and all that it inhabits. The one plan enters upon the geographical study of the earth by giving at first the broadest outlines merely of the continents, oceans, &c., and then gradually fills up the picture; while the other treats first of the topography of the neighbourhood, and lastly of the relative position &c. of countries when connected as a whole.

Geography may be treated two ways—

Analytically.

Synthetically.

Both these plans have been practised, but the first alone has been successful; for, however good the second may be in theory (and very many arguments can be brought forward to show that in theory at least it is excellent), it is found in practice that it requires men possessed of more than the usual intelligence of teachers to carry it out successfully. It requires special maps and diagrams of an expensive kind, and necessarily varying for each school; and it

Both practised, but first best.

Objections to second;

requires also from the children a regularity of attendance and an amount of attention to school duties much beyond what experience has shown it right to expect.

From what it arose.

This system arose from supposing that what is naturally most interesting to us, and with which we are most frequently brought in contact, should not only be the best known, but the first known. But this is not always the case; for, as John Norris says, 'It is one thing to state that a thing *deserves* to be known, and another to say that it is learning and wisdom to know it.' I am very much inclined to coincide with Mr. Gordon, one of Her Majesty's Inspectors of Schools for Scotland, when he says, 'It is surely a more liberal and improving knowledge which embraces, though in a very general manner, the great features of the entire surface of the earth, than that which is limited to an acquaintance, not very minute, with the topography of any of its political divisions, however much recommended by the accident of a personal relation to it.'

John Norris.

Mr. Gordon's views in support of first plan.

Knowledge of other countries very valuable.

There is no doubt but that our own country and our own neighbourhood are naturally more interesting to us than any other; but will a knowledge of them, in this age of change and emigration, be more useful? And, if not, would the time spent upon the acquisition of all their minute details not have been better spent in obtaining general views of the world—its countries, its people, its animals, vegetables, minerals, &c.?

Our thoughts are oftener on foreign countries than on our own.

Steam and the electric telegraph have so extended the facilities of communication, have so enlarged the commerce of the world, and so bound nations and people to each other, that we no longer feel and act as when isolated in single spots; we think as frequently of Australia, of America, of France, if not even more so, as of our own land; and therefore geography, to be practical, must embrace a large area, even if the knowledge so scattered be not so deep—and this especially in primary schools, in which the pupils remain so short a time.

We must, however, appeal to topography of locality first; but chiefly for ideas of terms.

In carrying out the analytical, or descending system, we cannot, however, wholly reject the other, which I may call the topographical system of teaching geography. The terms *city*, *country*, *continent*, *river*, *mountain*, &c., do not, in general, convey correct ideas of the things themselves to the minds of children;[1] and as true ideas are essential, and only to be satisfactorily obtained by a judicious extension of the child's views of the locality in which he lives, we must, to be intelligible, appeal to topography first, not as a system of teaching, but only as a means of explanation of certain terms.

Mr. Moseley's views &c. on this.

The following admirable remarks from Mr. Moseley's Report for 1845[2] prove the necessity for such a course, and show how it is to be done:—

Violence

'Violence is done to the intelligence of a child hitherto limited to the narrow range of objects of which it is itself the centre, when, by a rude attempt,

---

[1] 'The general objects with which geography has to deal have never yet been realised by the child. The round world, for instance, is an idea of which he has never yet got possession, except as a name; a map is an inscrutable mystery, notwithstanding the assurance, that it is *a picture of the earth*; geographical distance is measured by the mind wholly at random; in brief, the fundamental experiences must positively be gained and consolidated before any real knowledge is communicated upon the subject, however much technical lore may be laid up in the memory. Thus I have not unfrequently found children giving the names of towns and lakes in Russia or Tartary, who could not tell the next county to their own, or what was meant by the north and south. Others will inform you that the earth is an *oblate spheroid*, who, if tried, would not consider the distance from Canada to Cape Horn, when pointed to on the map, by any means so great as from where they live to the next large town. To a very great extent, indeed, I have found that, however perfect children may be as to localities and places on the map, there are ten chances to one that they have no *corresponding* idea of their position on the world itself.'—*Mr. Morrell's General Report, Min. of Council*, 1848–9, vol. ii. p. 469.

[2] Min. of Council, 1845–6, vol. i. p. 233.

done to a child by making him expatiate over the world.

its mind is forced to expatiate over half the globe, and pass to the conception of a region placed, perhaps, under a wholly different relation of external circumstances. These things are not to be approached by any such abrupt or compendious process, or otherwise than by the steps of a slow and gradual progression. Not, for instance, by teaching the child geographical definitions, or by accustoming it to recognise by their names places pointed out to it on the map.

Difference between us and a child in this respect.

'To understand the distinction, we have only to consider how many things go to our own conception of a distant region. The map serves, indeed, to define the idea we have of it, to give it vividness and completeness; but it does not originate it.

We know what *a* country is, he does not.

'We already know what *a* country is, which the poor child does not. When *a country* is pointed out by name to him upon the map, and he has learned to tell how, in respect to the four cardinal points, it is bounded by other countries, and what are the names of its rivers and mountains and chief towns, his memory may have been largely taxed, and yet his principal idea of the country may, nevertheless, remain in a great degree identified with an irregular figure upon a piece of paper. A vast chasm is interposed in the child's mind between the objects with which he is himself familiar, and those of which, in such instruction, he is required to conceive the existence — a chasm which his imagination is not strong enough to bear him over.

Not yet learned to *abstract* and *reflect*.

'His conceptions are too vague and too incoherent to be separated from the material things of which they have been formed, or to be presented to the imagination, and made the subject of comparison, of analogy, of accumulation, and of invention.

Must first teach him to *observe*.

'The first step in his education is to teach him to *observe*. This accomplished, and the child knowing at length adequately, *for the purpose in hand*, the characteristic features of that portion of the earth's surface which is within the compass of a day's journey, its varieties of elevation and aspect, its hills, valleys, and streams, his attention may be directed to the agrarian divisions of his parish, the fields and holdings which unite to form it. The boundaries of these, with which his memory is familiar, will convey to him his first idea of a map and its uses; that idea will, moreover, be precise and truthful. The next step might make him acquainted with the watershed of the district, and then the teacher would bring under his view the useful productions which it is made to yield by labour, whether pastoral or agricultural or mineral, associated as these are with the characteristic features of its surface level, its climate, drainage, aspect, and soil. Then the pursuits of its inhabitants, whether agricultural or manufacturing or commercial, in alliance with these and dependent upon them. Next, the domain of Natural History may be made to yield much for his instruction, in respect to the infinite variety of animal and vegetable forms which are assembled within the reach of his immediate observation, the birds which frequent that region, the domestic and wild animals, some of the tribes of insects, the commoner plants which grow around him, and the different kinds of trees. It is not proposed to burden the child's mind, in respect to any of these matters, with scientific distinctions or a hard nomenclature; all that is sought is a knowledge of them in their *ordinary relations*—such a knowledge as a child acquires in respect to those other things with which he is most familiar.

(1) Physical appearance.

How to give him the first idea of a map.

(2) Production as associated with the physical aspect of country.

(3) Pursuits of its inhabitants.

(4) Natural history in its various forms.

'Long before the teacher has exhausted this field of knowledge, he will, however, have become sensible of the expediency of making excursions beyond it. The idea which a child associates with a farm or field, now firm and consistent, will readily separate itself from that locality, and become the idea of *a*

With this he must learn by extension what is meant by—

A *tract* of land, tract of land, having prescribed limits and a definite form and boundary and bearings, as to the four cardinal points. And by a process of accumulation, to which his imagination will easily lend its aid, this abstract perception or idea of a limited portion of the earth's surface may be made to pass into the A country, conception of a far-extended country, the relations of whose lesser political divisions to the whole are those of the individual properties and holdings to the whole parish. The village mill-stream may become, by a like process, *a* stream, and have an existence in the mind separated from the locality. In thought, he can add many such to one another, A river, and then you may speak to him of the Thames and the Rhine and the Danube, with a probability of interesting him, and with the certainty of being understood. So the high ground, whence this and some sister brook pursue their course through neighbouring valleys, will convey to him the idea of the Watershed, *watershed* of a continent. His conception of a Mountain, mountain system may be reached by an easy and natural progression, the first step of which is a hill familiar to his earliest recollections. A neighbouring canal or navigable river will supply to him the idea Water communication, of water communication; a streamlet, tributary to some mill-pond, will suggest to his imagination the widened mouth by which a great river opens into Port, the sea; and the idea of a *port*, on the shores of which it will be easy to collect in imagination a commercial community. A mud bank will instruct him faithfully as to the formation and continued en- Delta, &c. largement of a *delta*, and account for the richness of its soil and the exuberance of its vegetation.

Geography obtains its value when it loses the character of an accumulation of facts. 'Geography acquires its full value as a branch of education only when it loses the character of an accumulation of facts, undigested by the child's mind, but heaped up in his memory, linked by no association with the world of thought and of action which immediately surrounds it, or with that which is within it. Tell the child to observe the lines of the map which hangs perpetually before his eyes, and talk to him only of the *names* of the places indicated upon it, and you will soon weary his attention; but speak to him of the living men who inhabit it, tell him of their stature and aspect and dress and ways of life and of their forms of worship—speak of the climate of that country, of the forms of vegetable and animal life with which his eye would be conversant if he dwelt there, of the trees and flowers that grow there, and of the birds and beasts—and you will carry his interest with you.'

Value of this early training as a preparatory step.

By such early training, the pupils will not only have learned to form true notions of the terms generally used in describing countries, but they will have acquired a standard by which they can try every new fact communicated to them, and they will have found out what is really meant by a *map* of a country. And this is essential when we consider how frequently we must appeal to the map when teaching geography.[1]

The first map is the rough sketch of the locality—the next the map of the world.

The first map used ought to be a rough sketch of the neighbourhood[2] in which the school is situated, and this chiefly to show to the children what is meant by the word *map*; but the next must be a map, not of any particular country, but of the world, on the principle already explained of giving, first, broad ideas of the continents and oceans and of their relative positions, and then descending to particulars.

---

[1] 'One of the great defects which I found in teaching geography was that the nature of the map was seldom sufficiently explained to the scholars. An excellent mode of giving this explanation, so as to bring it within the comprehension of the youngest pupils, would be by instructing the child in the geography of the street, town, or parish in which it lived, showing how the distances and relative positions of familiar objects were ascertained, and how they were represented on the map.'—*Mr. Jenkins, Education Commission*, 1861, vol. ii. p. 559.

See also Min. of Council, 1846–7, vol. ii. p. 380.

[2] The Ordnance Survey Maps would supply to each teacher, with great accuracy, a representation of his own neighbourhood, which could easily enlarge so as to serve for a good school map.

First lesson on it described. The first lesson on it should consist of the very simple one of assisting the children to distinguish the coloured from the uncoloured or white parts of the map. The very youngest children will be capable of learning to do this. The only error they are likely to make is to point to the white portion outside the circular black lines which bound the hemispheres. If they fall into it, they can be told that this is not a part of the map itself, as it is not placed there to represent anything on the earth's surface.

Second lesson. They are next to learn to distinguish the different portions of coloured surface from each other—to trace, in fact, the boundaries of each. Their attention may then be directed to the thick black irregular lines, and other peculiar marks traced here and there over the map. They are next to learn that the coloured part represents land, and the uncoloured part water, and that the dark shadings referred to represent *mountains*, *hills*, &c. They must then be called upon to point out themselves the large portions of land, and the various mountain chains &c. scattered over the map. They may then be told the names of the countries, and be called upon to point out each when its name is mentioned.

Third lesson. Their attention may next be called to the fact that the uncoloured parts, which represent water, are all connected together like one body, but that nevertheless those portions of it that lie between the different divisions of land get different names, each, however, being called an *ocean*. That, for instance, that part of the water which appears on a map *above* Europe, Asia, and America, is called the Arctic, or Northern Ocean; the part *below* Asia is called the

Indian Ocean; the part between America and Europe or Africa is called the Atlantic Ocean; the part to the *left hand* of America and *right hand* of Asia is called the Pacific; while the part *below* America, Africa, and New Holland is called the Southern, or Antarctic Ocean. The small hinged globe[1] may now be used to show that the Arctic, the Pacific, and the Antarctic Oceans are not in reality divided, though each appears in two different places on the map. In fact, that they cannot be divided, as there is no land by which any separation could be effected. When familiar with the appearance of the *oceans*, their attention may also be called to the other portions of water on the earth's surface, that is, to *lakes* and *rivers*, and in connexion with this they may be told that all the visible water on the surface of the globe is contained in these three—in the oceans (with their subdivisions), in the lakes, and in the rivers.

Fourth lesson.

In this lesson the terms *above*, *below*, to the *right hand*, and to the *left hand*, are used. They should now be told that for these terms are substituted the technical terms, North, South, East, and West, which, so far as a map is concerned, express exactly the same sense. They must be made perfectly familiar with the use of these as applied to a map, and for this purpose they might be got to show the country painted *above* Africa, *below* Europe, to the *right hand* of Africa, to the *left hand* of Asia, &c.; and then to show the country to the *north* of Africa, to the *south* of Europe, to the *east* of Africa, and to the *west* of Asia, their attention being called to the fact that the answer in each case is the same.

Cardinal points.

The true meaning of the terms north, south, east, and west is of course different. It is now the time to show them what these terms mean when applied to the earth itself instead of to the map. This must be done by reference to the sun. (See Dean Dawes' Hints, page 5, for very useful suggestions to enable a child to gain a good knowledge of the four cardinal points.)

---

[1] I allude to MALBY'S SEMI-TERRESTRIAL GLOBE, manufactured for the Commissioners of National Education, Ireland, in accordance with Professor Sullivan's method of teaching geography.

Dean Dawes referred to on this.

Must point to the actual position of each country on the earth.

When they have acquired this information, they may be told that any country lying to the north of another is painted *above* it on the map, or if to the south it is painted *below* it, and so on with the other points; but they should be made invariably, in the beginning, to point out not only the position of each country on the map, but its actual direction on the globe from where they are standing at the time.

Children in the south of Ireland will have no difficulty in this.

Children in the South of Ireland will have no difficulty in doing this, for they have been accustomed from their infancy to the use of these terms. If you ask a child where a certain school is, he may reply somewhat thus: 'When you go to the forge, turn to the north for about a mile, then face the west until you pass the bridge, and the first house on the south side of the road is the school.' Such a child will not be likely to mistake the direction of the mountains or rivers in his locality, or to err in naming the point of the compass to which he travels when going or returning from school; but there are many countries in which these terms are not used in common conversation, and in such cases more labour will fall upon the teacher. If the map were placed on the north wall of the school, some assistance might be afforded, as the countries will then be to the east and west, as they are actually upon the earth's surface.

Map to be placed on the north wall if possible.

All these lessons refer to the very lowest classes.

All this must be taught to the very lowest class in the school. It is quite within their comprehension, and it is a great advantage to begin the study of geography early.

Next lessons.

As the pupils have thus far learned the names and relative positions of the continents and oceans, they must now be taught their chief subdivisions — the most marked in outline of the several countries in each continent, and the largest of the several bays, gulfs, and seas belonging to each ocean. They will then learn their less prominent divisions, together with the names of the chief capes, mountains, lakes, rivers, &c., throughout the world.

Nature of their answers.

In answering upon this they should tell about *a country*, its name and position; as Siberia to the north of Asia, China to the south-east, &c. About *a cape*, its name and position; as Cape of Good Hope to the south of Africa, Cape Horn to the south of South America, &c. About *a mountain*, its name, position, and direction; as the Rocky Mountains to the west of North America, running north to south. About *a river*, its source, direction, and ending; as the Amazon, rising in the Andes Mountains, flowing easterly into the Atlantic Ocean, near the Equator. While, as regards the *oceans*, they should be able to name their subdivisions in order, and to tell what the straits and channels separate and connect.

Definitions of terms; but always with reference to the map.

In connection with this, they must learn the definitions of the several geographical terms; as island, lake, river, gulf, strait, isthmus, continent, &c., *and always with reference to the map.* A child, for instance, is told that 'an isthmus is a narrow piece of land joining two larger portions,' and then several instances must be shown to him on the map; after which he must be called upon to discover others for himself, correcting him in each case when wrong. He must see that the land must not only connect, but be narrower than what it joins, before we can call it an isthmus. Thus Suez, Panama, Corinth, are isthmuses, because they join pieces of land broader than themselves; while on the other hand the chain of the Pyrenees, though in strictness the connecting link between France and Spain, is not an isthmus, for though it connects, as all isthmuses do, it is too large relatively to what it joins to be included under the definition.

In the same way can be explained the peculiarities of a strait, a bay, a gulf, a lake, an island, &c.

When a term is forgotten appeal to map.

When a child happens to forget a definition, it is better to refer him to the map than to tell it to him. Thus, if he forget what a *lake* is, a number of lakes should be shown to him, and from a comparison of these he should be assisted to draw for himself the definition required. If he succeed, it is not likely that he will ever again forget it.

Carelessness in pointing to *name* instead of the *place*.

Let me now guard the teachers against a carelessness, too often met with, in the use of the maps, which permits the child to point to the *name* of what he is desired to show, instead of to its actual *place*. I have seen many children when

Examples of.

told to point out the Cape of Good Hope, for instance, who pointed merely to the word cape, or to the whole expression 'Cape of Good Hope,' although these words are printed on the *white* surface representing water. They were actually, therefore, pointing to an ocean instead of to a cape, and, as found upon examination to be the case, they were learning to look upon a cape as water, instead of land. This error more frequently happens, and is probably a more frequent cause of inaccuracies, in pointing out towns. Those children neither know the true position or the comparative magnitude of what they point out, who represent one town by a long name like St. Petersburg or Constantinople, and another by the short one Paris or London. Nor, when they mistake where the letters are printed for the position of the town itself, can they find the river upon which it is built, or, very frequently, the county or country in which it is. Such errors are the result of carelessness or injurious haste, and admit of no apology. I think it is sufficient, however, merely to point them out, to get them removed.

Danger of using the map is that it may become mere 'map teaching.'

The danger of using the map is that the teaching may degenerate into mere 'map teaching.' It is one thing, however, to teach the map and another to teach geography. A knowledge of geography is not secured by the mere pointing out of places, or in telling their names and relative positions as they appear before them; and however well the map may be known, it is but a picture after all, and geography does not treat of pictures, but of real land and water. It is the master's duty, therefore, to omit no opportunity of withdrawing the minds of his class from the map, to fix them on that which it is supposed to represent. This will be difficult if the master treat geography merely as consisting of so many names of rivers, countries, lakes, &c.; but if, remembering that all knowledge has man himself and his different relations for its object, and that every study becomes interesting and valuable in proportion as it is directed to that end, he treats, in his geographical lessons, of the productions of the world, of its different climates, of the exploration of mariners, the acquisition of warriors, the extent and variety of commerce, the relationship existing, whether friendly or unfriendly, amongst the different families of the earth, of the manners and customs of the people, &c., he will have no difficulty in withdrawing the child's mind from the picture to the reality. And in proportion as his illustrations are vivid and his descriptions interesting, his labour will be less.

How to avoid this.

What must be combined with each lesson on the map.

During the whole time, therefore, that he is teaching the map—for it is necessary to teach the map as well as to teach geography—care must be taken to combine with each lesson as many little facts, within the comprehension of the children and suitable to the growth of their mind, about animals, vegetables, minerals, as will tend to *realise* the subject, and make it interesting and instructive. They may be told, as already stated, the productions of each country—under the three heads of animal, vegetable, and mineral—and which of them form the chief exports, with what country each chiefly trades, and for what articles. They should also learn the different races and habits of the people; the various causes which retain them in one spot, as in China; or determine them upon particular countries, as Australia, California, &c., with the routes pursued by emigrants and those engaged in commerce, in going from place to place; they should also know the influence of geographical position, or the proximity to deserts, mountains, &c., upon temperature, upon health, upon the races of animals, and the growth of plants. The mineral wealth of the large mountain chains, the character of the rivers rising in them, whether rapid and shallow, slow and deep, navigable or not, and if navigable, the towns which have sprung up on their banks, together with their commercial character, should also form portions of the lessons.[1]

Pupils must compare each with what they already know.

And in giving those facts the teacher should take every occasion to make the children compare them with what they already know, *or with what they had observed in their own country and neighbourhoods.* It is by such a comparison that knowledge of distant things and places is made real and instructive.

---

[1] Mr. Combe, in his 'Notes on the United States of America,' mentions the plan which a gentleman adopts to improve his sons in geography, and which I think may be followed with advantage by teachers. He desires one of his sons to read from the daily newspaper the list of ships which have arrived in the port of Boston (any other port would, of course, do). It specifies the places from which they have come, and the nature of the cargo. He then gets one to point the place out on the map; another is desired to assign a reason why it brings that particular cargo from that particular place. This leads to an explanation of climate, soil, and natural productions of that part of the globe; and this is often followed up by descriptive particulars concerning the religion, government, manners, and customs of the people.'

A country once well described becomes a standard.

Each lesson must become more minute, and each description more strictly accurate and scientific. It is a good plan to describe one country well, and make it the standard for most others. For, as Mr. Morrell says (Min. of Council, 1848–9, vol. ii. p. 469), 'If any one country were well taught, its size made fully apparent, its natural features all placed as a picture before the mind, its productions, its people, its usages, its laws, its religion, all impressed and explained, it would become a kind of central point of light and knowledge, from which the scholar could proceed to other countries, until he has, as it were, paced the globe, circumnavigated its oceans, and seen in his mind's eye everything remarkable as he passed onwards.' He adds—and in this I quite agree with him—'That lively narrative of travellers and tourists might be used with great advantage in teaching geography to primary schools. The description of a country like Switzerland, its mountains, lakes, plains, glaciers, waterfalls, avalanches, smiling valleys, and eternal snows, all accompanied with a proper map and a description of the habits, history, and government of the people, would certainly do far more to instruct the mind than a catalogue of boundaries and divisions involving a number of names to which no mental imagery whatever is attached. The comparison of Switzerland, again, with a country like Holland, would draw forth various considerations highly instructive; while the mere localities would be far more vividly than ever impressed upon the mind, by connecting them with the mighty stream which rolls from the summits of the one, and loses itself in the marshes of the other.'

Mr. Morrell's views on this.

Geography one of the most valuable studies.

Geography is one of the most valuable of studies, as it deals with so many various subjects of the most practical kind. It instructs, and while it instructs it humanises, by showing us how intimately we are all bound together in working out a common end. There t requires, owever, a reat deal f general nowledge.

is scarcely any subject, however, which requires from the master a greater amount of general knowledge, or a greater tact in bringing his information to bear upon each day's lesson; but, on the other hand, there is scarcely any subject in which pupils take so much delight, or in which they make such gratifying progress, when it is rationally and carefully taught—taught not as a system of names, but as an interpretation of nature and art.

'eacher iust not all into xtreme of eglecting *ames*, &c.

In making geography descriptive, the teachers must not, however, fall into the extreme of making it purely so. It is essentially necessary to teach the *names* of places, of mountains, rivers, oceans, seas, and the whole topography of the map, as a picture of what in reality exists, as it is to teach the facts to which I have previously alluded; but, instead of teaching the names by themselves, they must be joined with every thing which will create in the minds of the children an interest and a pleasure, so that, thus associated, they may be permanently remembered.[1]

---

[1] The *names* may be made interesting by an attention to their derivation. In fact, 'the *Etymology* of geographical names forms an important feature in this branch of knowledge. The name of a place often tells its condition or history; and the explanation of the same, by calling into exercise the power of association, increases the probability of its being remembered. Thus the name *Buenos Ayres* still shows the *salubrity* of the *air* of that town; Sierra, the Spanish name for a range of hills, the *saw*-like appearance which it presents; New *York* tells us that it was once a colony of *England*, and those who know that it was first called New *Amsterdam* know, too, that it was founded by the *Dutch*; *Virginia* shows that it was colonised in the reign of our *virgin* queen, Elizabeth; *Carolina*, during that of Charles (*Carolus*). The term *fell*, applied to mountains in the north of England, the south of Scotland, and to the islands of the north and west, shows that these parts of the country were occupied by some tribe or tribes of Scandinavian origin; while *ben*, or *pen*, found in the most mountainous regions, confirms the facts of history, that these high grounds were unconquered by the northern invaders, and continued in possession of the original Celtic inhabitants. In thus finding out the cause of the name, the reason has been exercised, and the study rendered highly philosophical; and a science which has often been thought

Dr. Arnold.

The following extract from Dr. Arnold's 'Lectures on History,' places the connection between the two portions of geography in a clear light, while at the same time it contains some hints upon the general objects of the study, which will be of assistance to the teachers:—

(1) What the knowledge of geography is.

'Let us consider a little what a knowledge of geography is. First, I grant, that it is a knowledge of the relative position and distance of places from one another, and by places I mean either towns or the habitations of particular tribes or nations, for I think our first notion of a map is that of a plan of the dwellings of the human race. We connect it strictly with man and with man's history, and here I believe with many persons geography stops. They have an idea of the shape, relative position, and distance of different countries, and of the position, that is, in respect to the points of the compass, and mutual distance of the principal towns. Everyone, for instance, has a notion of the shapes of France and Italy; that one is situated to the north-west of the other, and that their frontiers join; and again, everyone knows that Paris is situated in the north of France, Bordeaux in the south-west; that Venice lies in the north-east corner of Italy, and Rome nearly in the middle, between north and south, towards the western sea. This much of geography is indeed indispensable to the simplest understanding of history, and this kind of knowledge extending over more or less countries, as it may be, and embracing with more or less minuteness the divisions, provinces, and positions of the smaller towns, is that which

---

to consist only of lists of hard unmeaning words, has been made attractive in a more than usual degree.'—*Min. of Council*, 1846-7, vol. ii. p. 356.

See Dr. Sullivan's valuable little geography for a list of Celtic and other roots frequently found in names of rivers, capes, countries, &c.

passes, I believe, with many for a knowledge of geography.

(2) 'Yet you will observe that this knowledge *does not touch the earth itself*, but only the dwellings of men upon it. It regards the shapes of a certain number of great national estates, if I may so call them, the limits of which, like those of individuals' property, have often respect to no natural boundary, but are purely arbitrary. A real knowledge of geography embraces at once a knowledge of the earth, and of the dwellings of man upon it. It stretches out one hand to history, the other to geology and physiology. It is just that part of the dominion of knowledge where the students of physical and of moral science meet together.'

He adds, 'The deeper the knowledge the easier it is remembered. I find it extremely difficult to remember the position of towns when I have no other associations with them than their situation relative to each other. But let me once understand the *real* geography of a country; its organic structure, the form of its skeleton—that is, of its hills; the magnitude and course of its veins and arteries—that is, of its streams and rivers; let me conceive of it as a whole mass made up of connected parts, and then the position of man's dwellings, varied in reference to these parts, becomes at once easily remembered, and lively and intelligible besides.'

If skeleton were given the pupils should be able to fill in the towns &c.

In fact, if the skeleton of a country were properly sketched out, if all its natural advantages and disadvantages were fully known, any intelligent child should, from merely knowing the general laws which determine man's residence in different places, be able to place, in the rough outline, without ever consulting the finished map, the majority of the towns and cities it actually possesses. The very effort to do this would be instructive, and even the failures could be made to yield valuable knowledge, by causing enquiry into the reasons for any discrepancy which might exist.[1]

Errors now met with in examining upon geography.

In examining a class upon geography, the chief defect is a want of sequence and proper connection among the several questions. Most teachers begin, no matter with what class—with the highest as well as with the lowest—somewhat thus :—

1. What is a map?
2. What is *this* map a picture of?
3. How is the world divided?
4. How many parts land?
5. How many water?
6. Where is the Equator?
7. Where the tropic of Cancer? &c. &c.

All these forming the unvarying introduction to some such questions as these :—

1. Show me Europe.
2. Where is the Mediterranean Sea?
3. Point to the Cape of Good Hope.

Now this is very absurd. (1) Because, if the queries suit one class they cannot suit all. (2) The pupils learn the questions and answers by rote, and gradually cease to think upon the subject at all, answering merely mechanically. And (3) the questions are so separated as to destroy all connected thought, and to blend the impressions into a confused mass. At one time they ask about *a line*, at another about *a strait*; one time about *an ocean*, the next about *a mountain*; one time about *a cape*, the next about *the poles*, going from question to question without any distinct purpose in view. This is exactly as if, in teaching grammar, the master asked a question, now about *a noun*, next about *a verb*; now about *a vowel*, and again about *Syntax*.

---

[1] 'Certain conditions are given, from which certain consequences are to be inferred. Thus they are expected to discover that the rivers of Eastern Europe are slow, and of Western Europe rapid; after having been told that the former have their rise at a slight elevation, and have a lengthened course, and the latter originate in the high land of Central Europe, at no great distance from the sea. Political and social geography are thus shown to be in a great degree dependent on physical geography: the reason is seen why one country is agricultural and another commercial; why a certain manufacture should be carried on in a particular locality in preference to every other; and why an alteration in the mode of manufacture should involve a change in its seat. Thus, that Holland is agricultural, and England manufacturing; that our cotton manufacture is carried on in South Lancashire and the edges of the neighbouring counties, and not in Lincolnshire; that our manufactures generally are travelling north and west; and that iron, which was once largely manufactured in Kent and Sussex, is now only smelted on the great coal fields; are not merely so many facts, but highly interesting facts—interesting because regarded as effects, the causes of which are perceived, and have probably been discovered by the student himself.'—*Min. of Council*, 1846-7, vol. ii. p. 356.

Want of sequence.

Teacher must have a distinct object before him.

In every lesson the teacher should have a distinct object to carry out, and to that he should adhere to the exclusion of everything else. Thus, if he wish to treat of the continents, or of the oceans, or of their subdivisions, or of the mountains of the world, or of its rivers, he may do so in each case, in one lesson or in several; or if he wish to show the natural connection between some of these, as between the shapes of the continents and the oceans, between the mountains and the rivers, between the rivers and the towns, &c., he may do so by grouping them judiciously with that end in view. In fact, if he wish to talk of land, well; if of water, well; and if of their connection, it is well also; but he must know exactly, before he begins, about what he intends to talk, so that he may not run one subject into another.[1] His questions and the proper answers should form a connected catechism upon the subject matter of the lesson, that is, when his object is to *teach*. When he is merely *examining* it is different; for as in this case he proposes to test what is known, and not to impart methodically arranged information, it is allowable to take a wider latitude, and not only allowable, but judicious.

---

[1] 'Several masters are now adopting the plan of first describing the great mountain ranges of a country, then the rivers rising on each side of the watershed and passing through the intervening valleys; next, the chief towns along their banks, and on the line of coast; and lastly, the political divisions of which these towns are the capital, and with which their names are associated.'—*Min. of Council*, 1851, p. 1,013.

See also 'Outlines of Geography,' by Professor Pillans.

Map to be rolled up in examining upon geography.

In *examining* a class, if the object be to test whether the pupils know the *map* or not, the map should be exposed; but if the object be to test whether they know *geography*, the map should be rolled up. The map is used for *teaching* geography, but not for *examining* upon it.

When text-books are to be used.

Text-books on geography, like text-books on grammar, are necessary merely to complete the picture whose chief features have been already sketched out by oral teaching; they must not, therefore, be put into the child's hands until he knows the map of the world well. When this is the case, the text-books may be used to assist the maps—which are but text-books in another form—and the instruction must be more systematic and minute.

Order in which the continents &c. may be taught from them.

It is difficult to say to which of the continents he should first attend, and in what order they should follow each other, so as to provide, as well as possible, for the numerous cases in which children are forced to leave school before they learn a complete course. I think the following arrangement as good as any:—

Teach *first*. Europe, in connection with the child's own country.

Secondly. Asia—the broadest features not already known—together with the next most important part of the British Isles.

Thirdly. America, as Asia, in connection with the remaining part of the British Isles.

Fourthly. Africa and New Holland, and British Dependencies.

Finally. A minute knowledge of the continents, with a revision of Great Britain and Ireland.

This arrangement brings the child to his own country early.

Such an arrangement introduces the child at an early stage to a knowledge of his country, and will therefore tend to remove the stigma, which is sometimes deservedly attached to many schools, that their pupils can give minute descriptions of Siberia or Patagonia, for instance, but cannot tell anything of the British Empire, or even of the counties &c. of their native land.

Lessons to be small, and to be gone over on the map before committal.

The lessons marked out for each evening's study should not be too large, and prior to the committal to memory the pupils should go over them upon the map—either the maps at the school, or atlases which for this purpose they should all be obliged to purchase. They will thus be able to get the lessons off more quickly and more correctly, and to understand them better.

Globe, use of, in the earlier lessons.

Up till now I have merely referred to a globe once, and that to show the connection existing between portions of the same ocean and continent when separated on the map. Thus far I think it necessary in the beginning, and also probably to give the children true ideas of the position of different countries in respect to each other, and their distance asunder; but, in my opinion, it is very far from correct to use a globe regularly from the first, or to commence geography at all by discussions upon the shape of the earth, its size, measurement, lines, &c.

Bad to begin by teaching the shape &c. of the earth.

A child's notion that the world is a plane may be allowed for some time.

The child's notions of the world as a level surface, dotted here and there with hills and valleys, inasmuch as they are very natural and unproductive of any serious error, should be allowed to continue for some time. Very little good, if any, ever results from violently overthrowing the preconceived notions of a child, no matter how erroneous these notions may be: they must be gradually corrected by the child himself. It will not do to tell him that he is wrong, and that a certain other thing is right. He must have the materials placed before him which will enable him to conclude for himself that he is so. When a child, for instance, supposes the world to be a plane, he certainly makes a mistake; but, instead of blame, he is rather deserving of praise for having brought his senses to bear correctly upon the things around him. Everything he sees or knows tend to make him think so of the world, and it would be unnatural for him to think otherwise. He merely commits the error of judging from a paucity or incompleteness of data. The teacher's duty is, therefore, not only to tell him that he is wrong, but to place before him the facts he did not know of, and the very same mind that previously drew the wrong conclusion will now draw the correct one.

When he should study mathematical geography.

It is on this account that I have recommended first the use of maps. As he advances and is capable of understanding the proofs of the earth's sphericity, he may begin the study of globes and mathematical geography.

Proficiency for each class.

It merely remains for me now to sketch out the proficiency of each class in accordance with what I have just written. Geography can be introduced at a very early age, and that without occupying much of the master's own time; for, after the child has acquired correct notions of what is meant by the words town, country, &c., the map teaching may safely be left very much to monitors. Even without monitors, if the maps are exposed before their view, the children will be able to collect a good deal of information by themselves. Geography also forms an agreeable change from the other subjects of their school course; but that the young children may not weary of it, their lesson should never be allowed to extend beyond fifteen or twenty minutes. The following is the *minimum* which, I think, every teacher should expect from his classes:—

1st. Should know the oceans, continents, and their relative positions.

2d. The *chief* divisions of all the oceans, and all the continents.

3d. All their divisions, with the outlines of Ireland (or England, or Scotland, as the case may be).

4th. (Sequel Book, in Ireland.) All this, together with the chief lakes, rivers, mountains, capes, &c., in the two maps—World and Ireland.

5th. (Third Book.) In addition to this, the text-book of Europe and Ireland.

6th. (Fourth Book.) The whole of the text-book fairly, but that part relating to the British Isles well.

7th. (Fifth Book.) All this, and, in addition, a good knowledge of Dr. Sullivan's Geography Generalised.

Of course, as already stated, each class must know such interesting details in connection with these as will be fully within their comprehension.

CHAPTER VIII.

HOME LESSONS.

Necessity for.

A child has so much to learn, and so little time, unfortunately, if in the poorer ranks of life, to learn it in, that it is not only a matter of paramount importance to establish a judicious and economical system of instruction *in* school, but it is also exceedingly important to arrange such a course of studies as will make every moment *out of* school available that can, consistently with other duties, be devoted to learning. Hence the necessity for what are called Home Lessons.

They extend the school hours.

The school hours are about four daily; if, therefore, a boy's mental labours were limited to that portion of each day during which he was in immediate connection with his teacher, there would be exactly five-sixths of his time remaining, from which, if we deduct a large allowance for sleep, for taking food, for recreation, and for some small household duties that children must occasionally perform, there would still be a considerable margin unprofitably employed, and which, being generally spent in idleness, would be so far counteractive of the improvement effected during school hours. And when we consider how very few years make up the entire school life of the majority of children, we cannot but attach to this loss the greatest weight. Home lessons are a most important means to mitigate the evils of short attendance and prolong the school life.

Their *moral* influence.

But besides the advantage thus springing from a judicious appropriation of time and continuance of mental effort, during a period which would otherwise be devoted to idleness, there are other advantages of no less importance attending the introduction into the school course of home lessons; one of these, and by no means the least important, is the *moral* influence which they exercise. Those lessons are not prepared under the master's eye; they are prepared *at home*, away from his control, and are, therefore, performed chiefly from the child's sense of duty. But a boy who does things because it is his duty to do them, is morally advancing, and the exercise that constantly affords him the opportunity for so acting must be regarded as an admirable means for moral culture. 'Home lessons create habits of obedience to motives not suggested by the dictation or presence of the master, but coming directly from the pupil's own sense of duty, they have a moral effect, at least as valuable as any other benefit that attends them.'[1]

Make self educators.

Owing to the large amount of voluntary exertion, of unaided solitary work, and of individual, independent mental effort which they necessarily require, they create habits of self dependence, of self reliance, and a resolution to overcome difficulties. These advantages are very important, especially when we consider that a child can never become a self educator by even the best course of mere teaching. He has two instructors—the master and himself; but the best cultivation of his mind is made by his own unaided exertions. Tell him all that is known, it will not improve him unless he thinks and works for himself, and in this light 'home lessons' are essential. They permit him, to a considerable extent, *to educate himself*.

---

[1] Min. of Council, 1845-6, vol. ii. p. 334.

Afford practice in collecting the meanings of printed words.

They give to the child, also, sufficient practice in collecting, without the master's aid, the meaning of printed words; and as books are now the great means of education, the power of mastering their contents by one's own unaided exertion is at the root of all learning and of all progress, and is, therefore, an advantage second to none other. Home Lessons are thus the best preparation for that extensive course of reading which public libraries are created to foster and support, for a child in the habit of reading much by himself at home, even although he regards this reading at first in the light of a task, will insensibly come to take a pleasure in the practice, and pursue it long after he leaves school.

Thus a preparation for libraries.

They reproduce the business of the day.

Improvement to be thoroughly effectual must be continuous, and, in the case of children, it is the result of endless repetitions. Home lessons are, therefore, valuable also for the aid which they can be made to afford in causing the progress in school to be less evanescent, for it is easy by their assistance to reproduce what has been already gone over, and to supplementalise it. The home duty can be made either an extension of the school duty, or a reproduction of it, or the two duties can be so intimately blended or dovetailed together in other ways, that they will mutually assist each other. They form also an admirable test for the amount of information a child carries away from any given lesson, and of his ability to apply it.

They show the amount of interest each boy exhibits in his own advancement.

They serve, moreover, to show, probably in a way that no other lesson is so well calculated to do, the amount of interest and heartiness with which a scholar works. The difference in the zeal which boys bring to bear upon their school duties is even greater than the difference in ability which they exhibit, and it is a matter of considerable importance for the master to be able to determine exactly the amount of hearty coöperation he is to expect from each.

They create home tastes &c.

These lessons give children home tastes, and domestic habits which may hereafter preserve them from many dangers, and they ought on this account, at least, to be a favourite with all parents. Some parents, I know, are exceedingly careless in respect to them, and some even oppose them; but home lessons have always been well regarded by every intelligent parent, not only on the grounds just stated, but because they afford a most satisfactory proof of the master's care and the child's diligence and anxiety to improve. When they are well carried out, the parents will not only take a greater interest in them, but in all that concerns the school; they will more readily coöperate with the teachers, for these lessons form, to a certain extent, that binding link which connects the master's influence with the homes of his children. In many cases they have proved also the means of rousing the parents themselves to a sense of their own ignorance, so that many men, who can now read and write, have owed the first thoughts they had about self-improvement to seeing their children engaged with their school books by the fireside; and many have even received their first lessons from their own little ones.

Well regarded by intelligent parents.

Of advantage to the parents themselves.

May fail from various causes.

These lessons may, however, fail from various causes. They may not be adapted to the exact abilities of each child. They may be so difficult as to be unintelligible without assistance, and so long as to weary and disgust; while, on the other hand, they may be too easy—they may require so little mental effort, that the child may learn to neglect what he feels he can perform with so little trouble. Again, they may have little or no connection with the school business for each day; they may be got off in school instead of at home; they may be heard without judgment, revised without regularity or earnestness, and required only at intervals.

The length of the task

With regard to the length of the task, it is impossible to give any definite rule; each teacher must

regulated by their children and by the circumstances of their homes—

be guided in this solely by his experience of the children *and by the circumstances of their homes.* In many districts the children are required to work before and after school hours, and in some seasons they are more constantly engaged than at others; the home lessons must therefore be different in such cases from those applicable to children more favourably circumstanced, *and they must vary with the season*—long, when the work is scarce; short, when business is hurried. All the lessons ought not to be said on one day, as some teachers require. If, for instance, a child is getting tasks in the following books:—Grammar, Geography, Table-Book, Arithmetic, Spelling-Book—it would be absurd to oblige him to get a task in all for every day. The better plan is to group them in pairs, giving, suppose, grammar and spelling-book for Monday; geography and spelling-book for Tuesday; table-book and arithmetic for Wednesday; grammar and geography for Thursday; spelling and arithmetic, with a short lesson added in the table-book, for Friday, and repetition for Saturday. This, of course, is but one way in which the lessons may be grouped; others equally good can be made out, but which it is unnecessary to give here, as teachers will have no difficulty in making such arrangements for themselves as will best suit their respective schools.

also by the number of books

and by the teaching power &c.

The arrangement of the lessons must also depend a good deal upon the number of classes to be taught and upon the extent of the teaching power in the school. It is injudicious to introduce home lessons on grammar, geography, &c., too early—the proper time for the use of these text-books is already given—and it is equally injudicious to make the lessons so numerous that the teaching power of the school will be unable to meet the increased labour. No lesson should be introduced which cannot be properly *taught* —not *heard* merely—and no lesson should be omitted which can. I do not mean taught by the master himself, for some of these lessons may, in case of necessity, be taught by an intelligent lad selected out of the senior class, and the teacher in setting apart the quantity in each case should take this fact into consideration.

Home business may be connected with school business.

(1.) Penmanship.

The *home* business may be connected with the *school* business in many ways, and in nearly all the subjects of the school course. (1.) *Penmanship.*—Each child may be required to practise writing in copybooks, from models previously set by the teacher, and in books distinct from those in use in school. These can be brought for examination at whatever times the master may think correct, once a week, or once a fortnight, or monthly, according to the proficiency of each child, and the dependence to be placed in him. (2.) *Arithmetic.*—Certain questions may be given to the class, to which they will bring answers neatly written out. Four or five questions, judiciously selected, will be sufficient. (3.) *Grammar.*—Those learning to parse may be called upon to write out the parsing in full of any passage selected, together with the rules of syntax relating to any particular case; while the others may be called upon to transcribe forty or fifty lines from a Reading Book, marking the *nouns*, or *verbs*, or *adjectives*, &c., or two or three of them, according to some system of marking already determined upon—as, for instance, underlining the noun, putting two lines below the verb, one above and one below the adjective, one only above the adverb, &c.: or they may simply write the words in columns, each column being set apart for a different part of speech; and occasionally they may be called upon to state the reasons for each answer. Or, again, certain words may be given, which they are to place in sentences of their own forming, where these words will have different uses or parts of speech. Or, certain rules and definitions may be given, which they are to illustrate by examples different from

(2.) Arithmetic.

(3.) Grammar.

those in the book; or they may be called upon to quote the most ordinary errors of speech committed in the neighbourhood, and to show why each is wrong. (4.) *Geography:*—They may be called upon to describe any country *solely by reference to the map*, its shape, its boundaries, its rivers, towns, &c.; they may be required to tell the seas, bays, gulfs, the straits, &c. of any country; or to answer any other question, within the immediate sphere of their knowledge, upon places, people, exports, &c. (5.) *Reading.*—The pupils may be called upon to read the lesson over carefully at home, so as to be able to answer questions on its subject matter, and to read with ease and fluency. This preparation may be tested, either by examining them before allowing them to read it again in the presence of the master, or by calling upon them to produce a written summary of its leading facts, or at least the different heads of which it treats, and to be able to say something on these heads. Or, the children may be required to bring a written abstract of what they were previously told about any lesson taught to them the day before, or at any time selected. (6.) *Meanings.* — They may be called upon to bring lists of the meanings—that is the applications — of the chief words in any lesson selected. These may consist of words already told to them, or for which they must consult *a dictionary.* 'It is somewhat singular that this is a book which a teacher seldom or never recommends pupils to buy, yet it is obviously one of the most necessary and useful books they could possess. If a child once acquires the habit of using a dictionary, he will learn more in one month than another of equal abilities would learn in three without one. A useful home lesson might be given twice a week to the highest class, by the teacher selecting some page in their reading-book, and requiring them to find out in their dictionaries every word with the meaning of

(4.) Geography.

(5.) Reading.

(6.) Meanings.

which they were unacquainted; the meaning should then be committed to memory, and the next morning the class should be required to write down the meaning of the words, and the parts of speech to which they severally belong.'[1]

The very fact of the child being obliged to go over each line to test whether he knows the meaning of the words, as they occur, or not, is advantageous. Care must be taken, however, not to allow this exercise to become merely rote or mechanical, and the teacher must still remember that it is to him and to his oral instructions that the pupil must chiefly look, after all, for his vocabulary. (7.) *Spelling.*—Pupils may be called upon to prepare the passages selected from their reading-books, or to commit to memory certain columns in the Spelling-Book Superseded. This preparation may also be made preparatory to the *dictation* exercise. (8.) *Etymology.*—They may be called upon to give the derivation—the root, prefix and affix—in any list of words selected, and to define the meaning of the words in terms of the signification of its parts. Or, they may be called upon to make out lists of roots, with derivations from them, &c. &c. (9.) *Composition.*—This may be connected with the school business by making it refer to something already taught to the class; or by calling upon the children to read over and reproduce in their own words any passage selected. Original composition is a very valuable home exercise, and by its very nature it must be confined to the best of the senior classes. (10.) *Memory.*—This may be strengthened by the committal of pieces of prose or verse, as already explained in a previous page.[2]

(7.) Spelling.

(8.) Etymologies.

(9.) Composition.

(10.) Memory.

---

[1] Min. of Council, 1856, p. 375.

[2] The following extract is from Gill's *School Management*, page 123.

'A better plan of home tasks, accomplishing spelling and promoting habits of observation and enquiry at the same time, is that of Dean Dawes. It consists in giving out a

They must be partly oral and partly written.

We thus see that the 'home lessons' can be made to embrace nearly all the subjects taught in school, and that they must be partly written and partly oral. In the junior classes they should be chiefly oral; in the middle division of the school there should be nearly an equal mixture of the oral and written elements; but in the senior classes the written exercises should largely predominate; and these will be found to be the most valuable, as they teach spelling, grammar, composition, &c., as well as the immediate subject to which they are supposed to relate.

Revision essential.

When the exercises are written they must be revised with great care and faithfulness. This is the chief difficulty when the classes are large, but without

subject for a written exercise, in which the child's own observation or reading, or its parents', or its neighbours' employments, will give the required information. This is prepared at night, and being presented in class the next morning, occasion is taken to hold a conversation on the misspelt words. With this plan may be associated—but in the higher classes—that of Isaac Taylor, for the cultivation of language in connection with the conceptive faculty—though equally well adapted to improve spelling. It is to give an object or a class of objects, to have written all the words descriptive of them; thus, *leaves* are—"thick, thin, polished, rough, indented, even, scalloped, triform, hairy, downy, dull." The *sky* is—"serene, stormy, clear, overcast, misty, hazy, foggy, gloomy, lowering, bright, resplendent, brilliant, deep, dull, brazen, ruffled, red, azure, vaulted, boundless."'

Mr. Morrell, in his general report for 1851, Min. of Council, p. 917, gives the following example of home tasks given out by the master of the Stockport British School, for the week:—

FIRST CLASS.

MONDAY.—Give a list of the capes, bays, and rivers of England.

TUESDAY.—Enter a page of sums.

WEDNESDAY.—Parse the first forty-eight words in the reading lesson.

THURSDAY.—Write a list of the mountains of England.

FRIDAY.—Write the definitions of the parts of speech.

SECOND CLASS.

MONDAY.—Write a page, and underline the nouns.

TUESDAY.—Enter a page of sums.

WEDNESDAY.—Write a list of the streets in Stockport.

THURSDAY.—Write a list of the counties of England.

FRIDAY.—Enter a page of sums.

it the lessons become useless, if not injurious. The teacher must make time for doing it himself, or else delegate the duty to such of his scholars or monitors as he can thoroughly depend upon. The following plan of examination is stated by Mr. Morrel to be amongst the most effectual devised. It is practised by the teacher who describes it for him. This teacher says, 'I have one hundred and twenty slates of home tasks brought at once. After playtime each boy takes his slate from its nail and stands to a line round the room. On one side are those who know how to do long division, that is, the reduction and proportion classes; these I call *examiners.* On the other side are all the others who will generally require their sums to be examined, and many of them *set.* I then walk along the line and hear every copy read; then the examiners sit on four or five forms, and the others take their slates to them to be examined; if the work be wrong the examiner hears the boy do it till it is right; but if found correct he signs his name and sends the owner with it to me. The examiners also bring their own slates to me at the same time. I seat myself conveniently to receive the slates, inspect them, and mark the date in a fractional form on every book or slate, as far as the boy has done. If I have any suspicion of the examiner, I hand the slate to a pupil teacher to check any error. Generally I find nearly all this can be done in twenty or twenty-five minutes.' The practice of bringing the exercise worked out on slates may be objectionable, from the awkwardness and inconvenience of bringing slates backwards and forwards from home to school, but the principle of correction here resorted to—that of appointing deputy examiners—may be carried out advantageously in almost any school. But the teachers ought to remember that the less they depute their own work to others the better it will be done.

Method of.

When the tasks are to be heard orally they

Oral lessons must be judiciously examined.

must be judiciously examined. I have noticed two very serious and very general faults in this respect. (1) The tasks are merely repeated, or *said*, as it is called, to the master; and (2) they are heard individually, and not, as they ought to be, in classes.

(1.) Avoid rote answering.

(1.) The mere repetition of the words of any lesson is no proof that the child understands it. If he say it well it is certainly a test of his diligence and earnestness when at home, and is so far satisfactory; but the master who limits his attention to this test is discharging his duty very badly, and indeed is doing no more than any boy might do for another, as not the smallest intelligence or professional skill is requisite.

When the 'tasks' are so taught, very few children have proper ideas of what is contained in the text books, but especially of the definitions in which, however, a clear and full comprehension of their meaning is so absolutely necessary. In grammar, for instance, when pupils are questioned as to the meanings of the terms generally made use of they utterly fail. In geography, the things defined are so seldom explained that their knowledge in this most interesting subject is mere word knowledge, and the map is so seldom consulted during the repetition, that the exercise becomes a mere test of memory, that child passing the examination most creditably who *remembers* most. And so on with the other subjects. Lessons thus taught are worthless in an educational point of view, and he who knows how very valuable such lessons could be made must look, as I do, with deep regret upon the unintellectual form they are allowed to assume.

(2.) Avoid individual teaching.

(2.) To hear the tasks individually is a most serious fault, inasmuch as, from the loss of time which it necessarily involves, the master is obliged to omit some of the most important parts of his duty, and to discharge the rest without intelligence, and without that patient thoughtfulness which is necessary to success. Such a practice is moreover subversive of all order and all system.

Evils of.

About half an hour daily is the period generally set apart for 'Home Lessons,' and this, in a properly conducted school, is amply sufficient; but by the individual system of hearing them, it would take at least ten times that amount. Let us take, for instance, the moderate calculation that there will be, on an average, the following children in each class:

10 in the highest
10 in the next
12 in the next,

and that each child will be prepared with tasks in *two* separate subjects, and this is a very low estimate indeed. There will, therefore, be sixty-four distinct tasks to be gone through, which, at 5′ for each, will give *five hours and twenty minutes*, a time that could not possibly be so devoted.

Suppose that these are heard in the half-hour, as they profess to be, then we have the startling fact, that each task could not occupy more than *half a minute*! Now what task could be even repeated in that time? I am aware that many teachers, who have half an hour marked on their time tables for this duty, occupy very frequently an hour and upwards, in order to get through the business tolerably; but this is merely committing a violation of rules in neglecting the written record of the school, and does not much improve the value of the tasks themselves. Can anything, therefore, be plainer than that either the individual system must be abandoned, or the lessons must remain, as they now are, a mere mockery of teaching.

Irregular attendance not a good excuse.

The excuse, so frequently offered by teachers, that 'they are driven into this course by the irregularity of the children's attendance,' is not valid. In the first case nothing should drive them to do what is a mere waste of time, useless to the children, and destructive of order; and, secondly, they should not act unjustly, and all who practise this system must clearly do so; for it compels them to punish the most deserving, in order to let offenders escape lightly. That this is so will be easily perceived from the following calculation. Suppose that the lesson extends to half an hour, and that all the children (say fifteen) are learning the same part; it is clear that each child will receive the full benefit of the thirty minutes, on the principle of collective teaching, so well understood at the present time. But suppose that one of these attended well, and that the remaining fourteen attended so irregularly that in the end they came all to have different places, the consequence would be that each child would then receive but two minutes, instead of thirty; and that he who attended well, and who, on that account, deserved encouragement and reward, *would be actually punished by the loss of twenty-eight minutes instruction*, and this simply because of the irregularity of those with whom it was his misfortune to be associated. And yet this is the result of that system which permits every child to take up the place in his book at which he left off when last in attendance, no matter how far his class-fellows may have gone on. It punishes the just for the unjust.

Loss brought on each child by himself.

It is no reason to urge that to skip through the book is a disadvantage, for, if there is any serious loss, it is brought on those who suffer it by themselves. They, and they only, are to blame, and upon them only must the disadvantage rest. I am aware that most children, on their return after a lengthened absence, insist upon being heard what has been taught to their previous class fellows; but to any such child the teacher should always be prepared to say, 'I would be glad to teach you these lessons, and would have done so had you come, but now I cannot possibly teach them to you alone without depriving others of my time to which they are equally entitled with yourself. You lose certainly for the present, but you have none but yourself to blame. Be therefore more diligent at home to remedy the disadvantage caused by your absence. The evil was brought about by yourself, but the cure is in your own hands.'

Creates loss of time for all.

They can also explain generally to the children that this system causes loss of time to all. That if each had his own way all would lose the twenty-eight minutes out of the half-hour, and that, therefore, they ought to consider how much more profitable it would be to receive the lesson lasting for *thirty* minutes instead of for *two*, even when joined with the disadvantage of occasionally passing over some pages when unavoidably absent. This skipping of pages, however, is not so serious an evil as many suppose. It is too frequently taken for granted that the text-books — the grammar, geography, spelling book superseded, &c.—are so progressively compiled, that one lesson is absolutely and essentially necessary for the proper comprehension of the next. This is by no means the case; each column of the spelling book is independent of the one before, or after; and although in the grammar and geography there is not so great a want of connection, there is yet sufficient to make it quite possible for any child to understand one part without having read what went immediately before. In the description of any continent, for instance, we have the countries and their chief towns, the bays and gulfs, the islands, the mountains, the rivers, &c., each grouped by itself. A child may not have learned the 'bays and gulfs,' for instance, but he may, nevertheless, be quite capable of getting off any of the others, and, therefore, of joining the class with perfect advantage to himself.

'Skipping' is not so serious an evil as it is thought.

Many teachers say it is impossible to

Many teachers, to whom I have thus explained the defects of the individual system, have not given it up. They say it is impossible; but although, in their cases, from its being so long, and therefore so firmly, established, giving it up may be a matter of extreme difficulty, and requiring great tact and firmness, yet it is by no means impossible. I have seen the whole system completely changed without a murmur from either the children or the parents, on the appointment of a new teacher; and besides, it is utterly and entirely discontinued in all good schools, of which, I am happy to say, the number is by no means so small that I cannot quote them effectively as examples to others.

give up the system.

Some teachers deceive themselves into the belief that they have given up the individual system of teaching these lessons, when they call up all the classes at one time, and thus imagine that their instruction is, as a consequence, collective; one teacher, in particular, who stated to me that he had only *one* class of home lessons, had in reality a dozen. His method of proceeding was somewhat thus:—He called up the three highest reading classes of his school, and formed them into one class, by making them stand together, with toes to the draft circle. He then took the first boy's book, and heard him his spelling; then the next boy's, and heard him; or, if two or three happened to be in the same part of the book, he gave a question to each of them, consecutively. But this, as I showed him — without however convincing him — was nothing but the individual system, with the shadow of a modification introduced occasionally. A *class* not being a mere assemblage of children round a line, but an assemblage of children receiving a common instruction upon the same lesson.

To assist them.
(1.) Have separate classes.

To assist teachers who are endeavouring to get rid of the individual system, I may suggest the propriety of having at least three different sections for home lessons arranged on the basis of the ordinary classification of the school, but slightly different from it. Suppose the classes for ordinary purposes were a, b, c, d, e; *a*, being the highest, they might be divided, for the purpose of home lessons, into three, by putting part of *b* with *a*, and the remaining part of it with *c*, and joining *d* and *e* together, for it will always be found that some in any intermediate class will be fitted to go with the next above, while the rest will scarcely be much in advance of those below. Now, if a boy in class *a* is absent for several days, it may so happen that, when he returns, those in class *b* will be about the place at which he was when he left. He can therefore fall in with them for some time, until, by a little more diligence and extra work at home, he qualifies himself for his former position.

(2.) Have the lessons marked for a week in advance.

Again, in each class there should be a black board or tablet suspended, upon which would be written the lessons for a week *in advance*, and of which each child should be required to take a copy on Friday evening, or Saturday. This would enable all absentees to prepare the proper lesson, if absent any time in the week. This arrangement could be carried out very simply, and is valuable in many ways besides the one just given.

Preparation of lessons in school. Evils of.

With regard to the preparation of these lessons *in* school, instead of out of school, it is scarcely necessary to say more than that such a course would entirely defeat every good end they were intended to produce. The very name of 'home lessons' would show the proper place for their preparation. I am sorry to say, however, that many teachers act with so little thought and good sense as to allow of this preparation in school. Others allow of what is called 'looking over' their tasks; and several permit an exercise called 'preparing lessons'—not home lessons necessarily, but any lessons which form a part of the day's business; the plan being, after one lesson has been taught, to send the children to the desks 'to prepare for the next,' and this they continue doing until the master is ready to call them up again; but all these are violations of good order. It is clear that the children should be engaged in school at those duties only which require the immediate care and supervision of the master. It is to receive his aid that they, in fact, come. If, therefore, a portion of time be devoted to what can be equally well done at home,—no matter how necessary and valuable the business may be,—it is misapplied, and the result is unsatisfactory. It is the master's duty to teach and explain, but not to superintend the preparation.

Additional remarks on two books.

In conclusion, I shall make a few remarks upon two books used for home lessons—the Table Book, and the Spelling Book Superseded. I have already said all that is necessary upon Grammar, Geography, Arithmetic, &c., in the previous pages.

(1.) Table Book.

Methods of questioning on.

(1.) *The Table Book.* In questioning the children upon each table, there are several methods: one is to cause the child to repeat the table verbatim, or to call upon him to write it down exactly as printed. The next is to ask the values of each item, taking the names as they occur; as, 'How many *drams* in an *ounce?*' 'How many *ounces* in a *pound?*' &c. The next is to take the items out of the usual order to prevent the rhyme or jingle of the words from assisting the memory. And, finally, the table may be examined on somewhat as follows:—

What is the *sixteenth* of an ounce called?
„ *fourth* part of a hundred weight?
„ *fourteenth* of a stone? &c.

(2.) Spelling Book Superseded.

This is not skilfully used at present.

How to teach it.

(2.) *The Spelling Book Superseded.* This book, as generally taught, is abused; it is converted entirely from the valuable purpose it was intended to serve, and made to do duty as an ordinary spelling book. The pupils prepare it by rote, and so say it. This book was written in connection with the new and improved method of teaching spelling, namely, by dictation; and when used it should always be in reference to that. It supplies the teacher with many sentences for dictation, framed with considerable ingenuity, and with a special fitness for what they are intended to serve; and it is from these chiefly that the spelling is to be taught, or from others of the teacher's own formation, or, which may be considered better still, from sentences framed by the children themselves. Thus, 'The Queen occupies the *throne* of England'—spell *throne.* 'This was *thrown* away as worthless'—spell *thrown.* Or the two words may be united together in one sentence, as, 'Chances are often *thrown* away by which monarchs might have preserved their *thrones.*' The principle being always to teach spelling by *dictation*, and the meanings of words by their *application.*

In order, however, to draw the attention of the children forcibly to certain words and their meanings, it was necessary to arrange them by themselves. This Dr. Sullivan has done under five distinct heads, which he calls 'verbal distinctions.' And the system of *dictation* does not prevent the children from committing these to memory—this in every system is useful, but the classification aids memory by appealing to the understanding, and renders the committal no longer irksome.

The five classes of verbal distinctions explained.

The five classes of words are arranged in reference to their *spelling*, their *pronunciation*, and their *meaning.* In the first class we have words pronounced *exactly* alike, and different in *spelling* and *meaning*; in the second class, the words are pronounced *nearly* alike, and differ as the others; in the third class, we have words *erroneously pronounced alike* by careless and incorrect speakers; in the fourth class, we have words that agree in *spelling only*; and in the fifth, we have those that are spelled and pronounced alike, but differ in *meaning.* In these we have different objects to test, and therefore we cannot, as teachers generally do, apply the same system of questioning to each. In the first class, a child using the words may fail in *spelling*, or if he meet them in a book he

Method of teaching each explained.

First class.

may confound their *meaning*; he cannot confound their pronunciation, as they are both pronounced alike. It is, therefore, to the spelling and meaning the master's questions must chiefly relate, and both of these are tested by sentences for dictation, such as those already given. In the second class, the questions may test the same points also; for although there is a difference of pronunciation between the words, yet in ordinary conversation this difference is scarcely perceptible. As, however, the difference ought to be known—no matter how small it may be—the children should be required to sound each word; and, when doing this, the master should see that they bring out the true pronunciation with sufficient distinctness. In the third class all the three are to be attended to, but the chief point is the pronunciation. The children should, therefore, first be called upon to *read* the sentences for dictation, or the columns themselves, and the questions may be framed somewhat as follows:—

Second class.

Third class.

'Spell *immigrant*, and tell its meaning. What word is pronounced nearly like it?—(this tests the pronunciation). Spell it, and tell its meaning.' It was better for the teacher to take *immigrant* first, instead of *emigrant*, for it is the word emigrant that is generally mispronounced, and therefore it is it which should be pronounced by the child. Or the master may say—

'There is a word which means *somewhat red*—what is it? Spell it (reddish). What word is frequently confounded with it in pronunciation? (radish). Spell it, and tell its meaning.' In the fourth class, the pronunciation is also the chief point to be attended to. The dictation sentences must be *read* as in class three, and the questions may be framed somewhat thus:—

Fourth class.

'Pronounce a-b-s-e-n-t. What is the meaning of it? Pronounce the same letters another way. What is the meaning then?'

'What is the name of the instrument used for shooting arrows?—spell it. Pronounce these letters another way, and state the meaning of the word.'

Fifth class.

In class fifth, the chief point to be attended to is the *meaning* of the words, and the questions must be framed to test this. 'What is the meaning of *angle?* There is *another word* spelled and pronounced like this. What is its meaning?' But the best way is to frame small sentences, and teach the meaning by the application, as already stated.

In this class, Dr. Sullivan has printed certain words in italics, to assist the teacher in tracing the secondary meanings to the common or primary meaning, of which they are variations. Thus, *bait* signifies that which is put on a hook to catch fish; also, to take refreshment at an inn; also, to set dogs on a bull, or other animal; and all these meanings, so apparently without connexion, are all traceable to a common source. *Bait* means a *bit*, or *bite*—hence a *bit* or *bite* when put on a hook is called a bait; to take a *bit* or *bite* at an inn is also to *bait*; to set dogs at an animal to take a *bit* or *bite* out of him is to bait that animal. The primary meaning of this word is not now used; but it occurs, as is just shown, in each of the secondary ones, and it is to this point that the teacher should carefully direct the attention of his children.

'Exercises in Orthography.'

That part of the Spelling Book headed 'Exercises in Orthography' should be taught as explained for the first class of words, i. e. the words should be got off by the pupils, and be tested next day partially, as they occur in the columns, but chiefly by framing them into sentences for dictation. As they are based upon certain irregularities in the letters, they may be made, however, exercises on pronunciation, as well as on spelling and meaning; and for this purpose the pupils should be made to pronounce each word correctly as it occurs. But as a bad pronunciation once acquired is very difficult of removal, the master should, at the close of one lesson, go over with the children the words in the next. If this be not done, the children, when getting them off at home, may contract a style of pronunciation exceedingly objectionable.

Rules of spelling already referred to.

I have already referred to the next part—to the rules for spelling; and it is unnecessary to add here more than that the rules must be thoroughly explained, and that the children must know fully why any word is an example, and why another is an exception.

The remaining portions of the book are very rarely taught, but, when taught, the proper plan may be collected from what I have already advanced.

In all home lessons the teachers must show that they value them themselves.

In all home lessons the teachers must show by their manner, by their earnestness and zeal, that they look upon them as equally important with any other part of the day's duty. If they do not do this, the children and parents will soon grow as remiss as they are themselves. I know that there is great difficulty in carrying out these lessons effectively; but I know that an intelligent painstaking teacher will always succeed, and, when he does succeed, I think there can be no better test of excellence.[1]

Test of excellence.

---

[1] For remarks on Home Lessons, see Min. of Council, 1845-6, vol. ii. p. 334; 1847-8, vol. ii. pp. 254, 369 and 374; 1848-9, vol. i. p. 130; 1851-2, p. 916; 1856-7, pp. 374, 537, 557, 644; 1857-8, pp. 519, 592 and 679; 1859-1860, pp. 30, 190, 195.

CHAPTER IX.

GENERAL HINTS.

(1.) Programme of proficiency for each class. Reading as the standard.

(1.) THERE should be in every school a *Programme of Proficiency for each Class.* The following document (pp. 360, 361) will explain its nature.[1] In it, reading is taken as a standard, as it is the only subject which all must learn, and do learn, from the first day of their attendance until the last. There are *nine* different degrees of efficiency, corresponding with *nine* different divisions of readers; and although in some subjects the progress expected is more than what is generally attained, yet it is not more than what I know to be possible, provided the methods of teaching are made use of which I have sketched out in the previous pages, and provided also that each subject is commenced at the proper time. It is only by beginning early that the true point of excellence will be reached.

The attainments defined are possible; but methods must be right; and subjects must be begun early.

That part of this document which refers to any one class should be copied out neatly on a tablet, or painted on a board, and suspended in the draft space of the class to which it belongs. The children should know it as well as the teacher, for it is equally for the guidance of both. It should be the guide to direct

The part for each class should be put in that class. Children must know it.

---

[1] For other programmes see Min. of Council, 1846-7, vol. ii. p. 232; 1852-3, p. 626; 1856-7, p. 529; and also the programme of proficiency in use in all the National Schools of Ireland.

the questions of the one and the studies of the other. Many children object to be placed in certain classes, and to learn certain things; this document will show to them the grounds of their classification, and the exact amount of information which they must possess before they can seek for a higher position. They will, therefore, be more easily induced to devote their energies chiefly to the points in which they have not yet reached the defined standard, and to pay less attention to the others. It will thus not only make their progress more uniform, and check considerably improper wishes for hasty promotion, but it will induce them to make stronger efforts for their advancement, while, at the same time, it will guide these efforts.

Advantage of this.

Another use of programme.

This document will also check the tendency which some masters exhibit of teaching their favourite subjects to the entire or partial exclusion of others—a very serious evil where it exists to any great extent, as it destroys all true classification, and prevents, therefore, satisfactory progress.

(2.) *Removals.*

(2.) *Removals.* Some well defined system necessary.

It is of great importance that some well-defined system of promotion from class to class should be established in each school. It is important in its influence upon the children, and from its forming a necessary element in judging their answering, and estimating the faithfulness and ability of the master. I find that teachers, as a general rule, detain their pupils much too long in every class, but especially in the junior classes. This is caused in some cases wilfully and knowingly, in order to make the pupils pass the inspector's examination; in others, it is the result of carelessness and inattention; while, in some few cases, it arises from mistaken views of the principles which should regulate promotions.

Pupils detained too long in each book at present time.

Causes.

CHAPTER IX.

GENERAL HINTS.

(1.) Programme of proficiency for each class. Reading as the standard.

(1.) THERE should be in every school a *Programme of Proficiency for each Class.* The following document (pp. 360, 361) will explain its nature.[1] In it, reading is taken as a standard, as it is the only subject which all must learn, and do learn, from the first day of their attendance until the last. There are *nine* different degrees of efficiency, corresponding with *nine* different divisions of readers; and although in some subjects the progress expected is more than what is generally attained, yet it is not more than what I know to be possible, provided the methods of teaching are made use of which I have sketched out in the previous pages, and provided also that each subject is commenced at the proper time. It is only by beginning early that the true point of excellence will be reached.

The attainments defined are possible; but methods must be right; and subjects must be begun early.

The part for each class should be put in that class. Children must know it.

That part of this document which refers to any one class should be copied out neatly on a tablet, or painted on a board, and suspended in the draft space of the class to which it belongs. The children should know it as well as the teacher, for it is equally for the guidance of both. It should be the guide to direct

the questions of the one and the studies of the other. Many children object to be placed in certain classes, and to learn certain things; this document will show to them the grounds of their classification, and the exact amount of information which they must possess before they can seek for a higher position. They will, therefore, be more easily induced to devote their energies chiefly to the points in which they have not yet reached the defined standard, and to pay less attention to the others. It will thus not only make their progress more uniform, and check considerably improper wishes for hasty promotion, but it will induce them to make stronger efforts for their advancement, while, at the same time, it will guide these efforts.

---

[1] For other programmes see Min. of Council, 1846-7, vol. ii. p. 232; 1852-3, p. 626; 1856-7, p. 529; and also the programme of proficiency in use in all the National Schools of Ireland.

Advantage of this.

This document will also check the tendency which some masters exhibit of teaching their favourite subjects to the entire or partial exclusion of others—a very serious evil where it exists to any great extent, as it destroys all true classification, and prevents, therefore, satisfactory progress.

Another use of programme.

(2.) *Removals.*

(2.) *Removals.* Some well defined system necessary.

It is of great importance that some well-defined system of promotion from class to class should be established in each school. It is important in its influence upon the children, and from its forming a necessary element in judging their answering, and estimating the faithfulness and ability of the master. I find that teachers, as a general rule, detain their pupils much too long in every class, but especially in the junior classes. This is caused in some cases wilfully and knowingly, in order to make the pupils pass the inspector's examination; in others, it is the result of carelessness and inattention; while, in some few cases, it arises from mistaken views of the principles which should regulate promotions.

Pupils detained too long in each book at present time.

Causes.

CHAPTER IX.

GENERAL HINTS.

(1.) Programme of proficiency for each class. Reading as the standard.

(1.) THERE should be in every school a *Programme of Proficiency for each Class.* The following document (pp. 360, 361) will explain its nature.[1] In it, reading is taken as a standard, as it is the only subject which all must learn, and do learn, from the first day of their attendance until the last. There are *nine* different degrees of efficiency, corresponding with *nine* different divisions of readers; and although in some subjects the progress expected is more than what is generally attained, yet it is not more than what I know to be possible, provided the methods of teaching are made use of which I have sketched out in the previous pages, and provided also that each subject is commenced at the proper time. It is only by beginning early that the true point of excellence will be reached.

The attainments defined are possible; but methods must be right; and subjects must be begun early.

That part of this document which refers to any one class should be copied out neatly on a tablet, or painted on a board, and suspended in the draft space of the class to which it belongs. The children should know it as well as the teacher, for it is equally for the guidance of both. It should be the guide to direct

The part for each class should be put in that class. Children must know it.

---

[1] For other programmes see Min. of Council, 1846-7, vol. ii. p. 232; 1852-3, p. 626; 1856-7, p. 529; and also the programme of proficiency in use in all the National Schools of Ireland.

the questions of the one and the studies of the other. Many children object to be placed in certain classes, and to learn certain things; this document will show to them the grounds of their classification, and the exact amount of information which they must possess before they can seek for a higher position. They will, therefore, be more easily induced to devote their energies chiefly to the points in which they have not yet reached the defined standard, and to pay less attention to the others. It will thus not only make their progress more uniform, and check considerably improper wishes for hasty promotion, but it will induce them to make stronger efforts for their advancement, while, at the same time, it will guide these efforts.

Advantage of this.

This document will also check the tendency which some masters exhibit of teaching their favourite subjects to the entire or partial exclusion of others—a very serious evil where it exists to any great extent, as it destroys all true classification, and prevents, therefore, satisfactory progress.

Another use of programme.

(2.) *Removals.*

(2.) *Removals.* Some well defined system necessary.

It is of great importance that some well-defined system of promotion from class to class should be established in each school. It is important in its influence upon the children, and from its forming a necessary element in judging their answering, and estimating the faithfulness and ability of the master. I find that teachers, as a general rule, detain their pupils much too long in every class, but especially in the junior classes. This is caused in some cases wilfully and knowingly, in order to make the pupils pass the inspector's examination; in others, it is the result of carelessness and inattention; while, in some few cases, it arises from mistaken views of the principles which should regulate promotions.

Pupils detained too long in each book at present time.

Causes.

programme, and, therefore, fitted for removal. Thus, for instance, there are generally two drafts in the first, or lowest class, independently of the alphabet draft. Draft one is presented for my inspection *as fitted for removal.* My examination is directed to test whether the children in it are so or not. If I find that they are, I recommend their removal into second class, of which they will form the junior division. Draft two of first class becomes, by the very fact of this promotion, draft one, and the duty of the teacher is to prepare it for removal at next inspection—four months hence. This he can easily do, as before their promotion into draft one of the children ought to be well advanced towards the middle of the book.

That which was the senior draft of second class ought to be fitted for removal in the same way, and draft two of it would take its place. Those removed from second into sequel, from sequel into the third, third into fourth, and fourth into fifth, do not necessarily begin the book upon their promotion, but go on with the class into which they are changed. This I find they can do, from the facility which they have already acquired in reading, and from the fact that it is almost as easy to read in the middle of any of these books as at the beginning. They do this to avoid the serious evil arising from an increase of classes. Promotions from these classes are regulated, however, as from the others; that is, the best of each—those who have been in the book for *two* visits of the inspector—must be fitted for removal.

How attendance is taken into account in this plan.

The attendance of the children is an important element in this scheme of removal. The way I find that it can be best taken into account is as follows:—I direct the teacher, in making out the class lists, to place a dividing line between the drafts, so that I can thus see at a glance all the children who ought to be fitted for removal at any given period. Those children admitted after the rolls have been written are placed on the rolls by themselves, no matter in what draft they are taught. I then examine *all* who are thus enrolled in the best draft, and any out of the low drafts that the master chooses to present as fitted for removal owing to superior talents and attention. All who have reached the requisite proficiency I recommend for removal, without any reference whatever to their attendance, but all who fail I reserve for separate consideration. I look to the record of their attendance, and if I find that they have attended well, I blame the teacher—unless in the very rare cases of natural dullness; cases, however, so extremely rare, that they are generally unimportant — but where I find that they have attended badly I blame themselves.

Advantages of this.

This course I find to be the fairest for all parties, and that it exercises a powerful influence over the children and the teacher. It defines the duty of both, and marks the causes of failure so clearly, that it always rouses their energies to the utmost. The children feel that they have a task assigned them, which must be executed in a definite time, and that the reward of removal awaits its successful performance. They are thus driven *to attend better*, to exert themselves more earnestly, and to be more anxious to coöperate with the teachers; and all teachers know well the rapidity of progress that necessarily follows the good attendance and hearty coöperation of their children. The teachers themselves know that their own work is to prepare the best draft of each class for promotion; when their children have succeeded, they feel that their merits will be valued; but when they have failed, they must be equally conscious that their neglect has been discovered.

Junior drafts.

It might be supposed that the junior drafts would necessarily be neglected upon this plan, but this is not so, for the teachers cannot for their own sakes forget them. They are the raw material upon which, after the promotion of the others, they will be called upon to work. It is therefore their interest to have them so far advanced that in four months they also will be fitted for examination. Besides, all inspectors will consider it their duty, while devoting their chief attention to the first section, to inquire into the progress of the others, and see that it is commensurate with the proficiency of the highest drafts.

The principle of this is applicable to all cases.

This system can only be carried out where the inspection is regular, and at proper periods; but the principle upon which it is founded is applicable to all schools, and ought to be carried out by the teachers themselves, in the absence of their inspector. It consists merely in *draft* promotion instead of *individual*, and in promotion after examinations held at stated times, upon a regularly defined programme of proficiency for each class.

Dividing the books will assist—Recommended by British and Foreign School Society.

The system recommended in the Manual of the British and Foreign School Society of dividing the books into such portions as can be taught in a given time, and having the same portions always taught at the same draft, will assist in making the removals more uniform. 'This division of the Lesson Books into *aliquot* portions of time is essential to the right working of the whole, or some drafts would be pushing up to the next station before those occupying it were ready to resign it to them.'[1]

No dregs in a good school.

When a fixed time is thus defined, the teacher's attention will be directed to that 'gravitating mass' to which Mr. Moseley alludes; and, if a conscientious man, he will take such special steps as will meet their peculiar case, and force them onwards. It will never do to let them lag behind. In a good school there must be no dregs.

---

[1] Manual of British and Foreign School Society, pp. 11 and 12.

Removals must be *numerous* and *judicious*.

Removals ought to be *numerous*, generally equal to the average attendance, and *judicious*—that is, the number must not be made up from any special classes, but from all, in proper proportions. The promotions should be regulated by the number in each class and their attendance; but, as a general rule, they should be most numerous from the low classes, and gradually diminish upwards.

Most from the low classes.

Qualifications for each *age*.

By taking the time of removal in connection with the age at entrance, and the programme of study, we can discover what any boy of average ability ought to know at any required age. Thus, suppose a child enters school when six years old, he ought, according to what I have written, to be advanced, if he attend well, one *draft*, or division of a class, every four months. He would therefore be in *class b*, when seven years old; in *class c*, when seven years and eight months; in *class d*, when eight years and four months; in *class e*, when nine years; and in *class f*, when nearly ten; and he would, between ten years and a half and eleven, have reached the following proficiency:—

At 11 years.

(*a*) He would be able to read any ordinary book well, and take pleasure in it.

(*b*) He would be able to write a good commercial hand.

(*c*) To write any sentence from dictation with correct spelling and punctuation.

(*d*) He would have a thorough knowledge of arithmetic.

(*e*) He would be able to parse any ordinary sentence.

(*f*) He would know local geography well, and mathematical geography fairly.

(*g*) He would be able to communicate with his friends, and to compose an original essay upon some familiar subject.

(*h*) He would know a good deal of bookkeeping, and have a fair acquaintance with mensuration, geometry, and algebra.

(*i*) And he would know so much of general information and of history as is contained in the Lesson Books in which he was taught.

This is a course sufficiently extensive for all purposes, and beyond which I do not think it likely that we either can or ought to go.

When the attendance is irregular, or the time of commencing later, the age at which the child will attain to the above proficiency will, of course, be greater; but, in general, it will range from ten to thirteen or fourteen.[1]

(3.) Classification.

(3.) CLASSIFICATION.

Based on programme.

Mr. Keenan's remarks on exceptional cases.

Intimately connected with this subject is the original classification of the children. This must depend, as a general rule, solely upon the school programme; but there will be some exceptional cases, which must be dealt with exceptionally. Mr. Keenan says:[2] 'Under ordinary circumstances, a teacher experiences little difficulty in assigning to a child the class for which his attainments qualify him; but when his acquirements are unequal—that is, when he knows enough of one subject, but too little, or, perhaps, nothing of another necessary to qualify him for a certain class—there is some difficulty in the matter; a difficulty which is often felt, particularly in dealing with children who come from private or hedge schools. It would be impossible to lay down rules which would regulate every case of the kind that might occur. The teacher must rely upon his own tact and judgment in deciding on what is best for the interests of the child and the school. There ought to be a balance struck between his attainments and his deficiencies, and he must be placed in that class which will be as little above or below his acquirements as will enable him to make the most profitable use of his time.'

---

[1] See Min. of Council, 1854-5, p. 393, for Mr. Cook's opinion of what a boy of twelve ought to know. It is not much different from what I have just sketched out.

[2] Report of the Commissioners of National Education, Ireland, 1856-7.

Exceptional cases must gradually cease.

Such cases, at the commencement, must always be treated as exceptional; but the master ought to arrange his teaching in such a way that their exceptional character will gradually disappear. These can never form a large number in any school which has been well and systematically taught; and where they, therefore, do occur, the error will be found to spring from the master himself—from his giving too much time to his favourite subjects, to the exclusion of others.

Basis of classification is the *general attainments* of the children.

The basis of classification is thus the *general* attainments of the children; but in some cases a separate classification is adopted for each subject, in accordance with which children who read together may not write or count together, or stand up to the same lessons in grammar and geography.

Mr. Kennedy's views on separate classification.

This, however, is found in practice to be so objectionable, that it is adopted very rarely. 'Re-arranging the whole school according to the lesson about to be taught is a practice which, in my opinion, is most injurious. This strange practice sometimes proceeds from the circumstance that separate charges are made for different subjects, and sometimes from the notion that boys should be classified in each subject according to their knowledge of each subject respectively. The least injurious form of this plan is where the re-arrangement of the classes takes place in the arithmetic lesson only; though even this would, in my judgment, be better avoided. I would arrange the classes upon an average of their attainments and capacity, but mainly according to their respective powers of reading, and of understanding what they read. I would then keep each class to its own books and its own subjects, labouring to bring the children of each class to a fair equality with each other in every subject, instead of losing time and creating trouble by reclassifying the children whenever there was a change of lessons. I dwell at length on this practice, because it is so common in Lancashire, though not elsewhere, and because I have seen so much confusion resulting from it, and so much valuable time lost. Moreover, all respect for the upper classes is destroyed where there is no fixed class at all, but where a boy is only in the first class one minute to be degraded to a fourth class the next.'[1] Reading is almost universally the chief test, and, in connection with it, arithmetic is also considered; but where the schools are properly taught, the classification will be founded upon all the subjects taken together. 'This is a matter of vital importance; a correct well-studied plan of classification is essential to the even, satisfactory working of every school.'[2]

(4.) *Means to keep up attention of class.*

(4.) MEANS FOR KEEPING UP ATTENTION OF CLASS.

When the classification has been completed, steps must be taken to make the children so joined together act as one, for otherwise, the instruction will be, in reality, *individual.* When in desks, the occupation is a silent one, and collectiveness will be, in most cases, secured by supervision. The teacher himself can do this, or monitors appointed by him. If no boy idles, the benefit of the exercise is generally felt by all; but this is not so in class teaching. In this, especially when the class is large, considerable tact, judgment, and professional skill are necessary to create united action among them. One child may be gazing round him, another may be seemingly attentive and yet his thoughts may be far away; another may answer without reflection; and there

Difficulty of keeping up attention in class.

---

[1] Min. of Council 1849, vol. ii. p. 177.

[2] Report of Commissioners of National Education in Ireland, 1859–60. Mr. Fleming's Report.

may be a general want of mental energy in all. To remove these defects completely is in the power of our best teachers only; but there are certain arrangements for this purpose which may be adopted by all, with more or less of success.

(1.) To take places. Advantages and disadvantages.

(1.) *Children may take places.* Each gets a question in the order in which they stand to the draft line, and when any miss, he who answers goes above them. This has its advantages and disadvantages. It creates attention by the hope of attaining an honourable standing in the class, or by the fear of losing one previously acquired. On the other hand, however, those who have already answered correctly, from knowing that they will not get a question again for some time, generally lose all interest in the progress of the teaching, and thus do not profit either by the answers or the mistakes of the rest. The instruction thus becomes almost *individual*, and is open to all the objections to which that system of teaching is liable. Besides, there is a great deal of time consumed, and the questions are very unequally distributed.

(2.) Hold out hands. Advantages and disadvantages.

(2.) *Children may be required to hold out hands.* In this case the question is given to the *class*, and those who think they can answer hold out a hand, and the master selects any one of these he may think it right to call upon. As no child can tell who will be selected, all must be attentive. In making his selection, the master should be guided very much by the character of the children. He should rouse the sluggish and inattentive by frequently appealing to them; and, to prevent imposition, he should call upon those of whom he has any doubt; for many times pupils hold out their hands without really being able to answer, and with the intention of deceiving. When instances of this are detected, the master should hold the boy up to public censure, for if left unpunished, it will sow the seeds of deceit and un-

Letter of a teacher on this plan.

truthfulness, and, at the same time, frustrate the object in view in teaching. The following letter from a 'first class' teacher explains the system fully. After stating in what it consists,[1] he says: 'One objection to this plan is that a boy may wilfully deceive you. This may be effectively guarded against in a number of ways: such as by studying the disposition of the boys, and putting the questions pointedly to those of whom you are suspicious. When a pupil is found out in deception a few times, he will be shamed out of the dishonest practice, and particularly so if the teacher make it a point to dwell on the honour and high principle of the boy who candidly acknowledges his mistake; and if a pupil is shown by the manner and bearing of his master that it is more reprehensible to deceive than to miss a question, the temptation to act wrong (which is the fear of the master's displeasure at the question's not being answered) will thus be removed, and, generally, the boy cured of his habit. But a stronger objection is, that a child may think he knows what is required, and yet, should he fail when appealed to, he will most unjustly be stamped as disingenuous. Such a proceeding would have a mischievous tendency, in arresting all efforts on the part of the boy to expand his mind by exercising the powers of thought and reflection. To prevent this, the questions must be pertinent and definite, and such that the pupil can at once *judge* whether he knows or not.' He adds, 'I have tried the system long, and with boys of every variety of character. I have found it answer, not only as a quick and efficient mode of examination, but, what is far better, a means of moral improvement to the boys, inculcating, as its tendency is to do, principles of honour and manly conduct, and discountenancing in the most direct and strongest manner all attempts to equivocate and deceive.'

---

[1] Report of Commissioners of National Education in Ireland, 1850. Mr. Butler's Report, Appendix.

(3.) Answer only when pointed to.

(3.) *The pupils may be directed to answer only when pointed to.* The hands are not held out in this case; the master selects the boy to whom he will put the question, and in doing this he ought to be guided by the character of the children, as in the case before. The boys may be put to the 'foot' who fail from heedlessness to tell what question has been given to another boy, or what answer was received.

(4.) Answer together. The most objectionable course.

(4.) *Pupils are permitted to answer together.* This is the most objectionable course. It prevents individual mental effort, by allowing one or two advanced boys to lead the others. This they can do so quickly that any one unaccustomed to children would be deceived. It can be easily proved that they do so, even in the most successfully conducted simultaneous classes, by separating the best, and asking the others the same questions once more; or by causing each child to answer for a short time by itself. Again, as another proof, it will be found that, whether the answers are wrong or right, they will be simultaneous, and be given in the same words by all. This system breeds conceit in the best and smartest children, and creates shallowness and mental inactivity in the others. Mr. Fletcher ably exposes its defects in the following extract; that simultaneous teaching may be collective, he says: 'It is essential that all the children should be required jointly and severally to carry on a course of mental effort addressed to the matter before them. This is wanting wherever, as in nine cases out of ten, it is supposed to be attained by requiring simultaneous answers, or answers which are supposed to be simultaneous, and which are at least indiscriminate from the whole assembly—that is, wherever the questions are thrown before the class indiscriminately, and any,

Mr. Fletcher's exposition of its defects,

or all who can, may answer. In effect, the words of a few older children, who alone are really following the teacher, are caught up by the rest with a rapidity which an uninitiated ear is unable to detect; and the result is so cheerful a noise that the teacher himself often believes that he is instructing the whole section, especially when he requires an unusually long or hard answer to be repeated by "all together." Now, in this case, the class is matched against the master to learn as little as possible; for boys, no more than men, will not think more than they can help; and the greater number hide themselves from instruction by a rapid transference from the ear to the lips of the answers of a few elder boys, or quicker boys, or simply a very obedient repetition of them "all together" when desired. But how is this defect to be remedied? I have often asked the question in examination papers addressed to teachers, and received for answer, "By making the lesson interesting," or "By impressing upon the children the evils of ignorance which they entail upon themselves by inattention." All this is very good, and an essential part of their duty; but something more is wanted on the part of the teacher; for children will sit amused or calmed by the voice and manner of a lively teacher for a long time, even though going through no mental effort, and receiving no consistent set of ideas whatever; while the insufficiency of the moral appeal to industry, where idleness is allowed to pass without detection, is, in the case of children, very obviously apparent. The skilled teacher will know, however, how to convert this thriftless collectiveness of vocal utterance into a fruitful collectiveness of mental effort by proceeding from the known to the unknown in teaching, and by a method of *individual questioning* to which all are held liable in rapid and irregular succession.' He adds, 'A common practice is to make a greater portion of the questioning *general* for simultaneous answering, with an occasional interrogation addressed to an *individual boy.* This does not, however, break up the tacit combination of the boys for the perpetuation of their ignorance.'

In fact, I agree with Mr. Keenan when he says that it should never be permitted in draft teaching. It is too noisy for the school, and it fails in procuring both the collectiveness of attention and the individuality of mental effort at which it aims.

This system leads to different estimates by examiners.

This system of answering leads to the formation of different estimates of the same school by the parties officially connected with it. The manager—generally a gentleman of education and intelligence, but inexperienced in school-teaching—hearing boys answer all together the various questions proposed rapidly by the master, naturally forms a high opinion of the amount of information possessed by each boy; and even the master himself is often led into the belief that what he hears is really the result of individual effort: but when the inspector sifts the answering thoroughly, as it is his province to do, making each child depend solely upon himself, and affording no hint or clue by which he could guess at the answer, he soon lays bare the hollowness and insufficiency of the results. The manager and teacher are shocked, but they attribute the bad answering to timidity in the presence of a stranger, to nervousness, to the form of questions, &c.—in fact, to every cause but the true one. Both become more or less dissatisfied, and the school is more than likely to suffer in consequence. All this may be prevented by either of those persons taking upon himself the office of an examiner, that is, of an examiner in the true sense of the word. He will thus place himself in the position of an inspector, and he will be almost certain to detect the very faults, concealed from careless supervision, which the inspector

Teachers and managers should *examine.*

exposed, and will, therefore, be less liable to blame those to whom no blame is attached, and be also more likely to apply the necessary remedies. There is another fact which touches upon this point, and which the hard-working teacher should ever bear in mind—*it is not what is taught, but what is understood* that counts to their credit upon the day of examination. Many a one labours hard to make his children know what they ought to know; but if they do not know it, how can he expect them to answer on it? Hard work is essential, but it is valuable only when it produces results.

Not what is taught, but what is understood that counts on day of examination.

(5.) Correct each other's answers.

(5.) *The children may correct each other's answers.* According to this system, when an error is made the master does not immediately correct it; he calls upon the child himself, or one of his class-fellows, to do so. If all fail he corrects it himself, as correction then becomes a part of his duty. But he should do this, not as many do by simply telling the proper answer, but by leading the children on, step by step, until they can form the correction themselves. He must lead them from what they know to what they are expected to know—from the known to the unknown. This is a very excellent plan for keeping up the attention of the children, and for making the instruction really collective; but to prevent confusion, they should hold out hands when able to correct any error, but they should only hold them out when called upon by the master. If they hold them out before being directed, they may distract the attention of the boy from the work before him, especially in reading. The eagerness of the children when a good system is adopted, and the attention of the teacher, mutually act upon each other. The master stimulates the children, and the children stimulate the master. A dull, heavy class destroys the energy of the teacher; a lively, intelligent, active class makes a zealous and interesting teacher. They act and react upon each other.

(6.) Mutual questioning.

(6.) *They are at liberty to question each other at the end of the lesson.* This keeps up the attention to a certain point merely, for when a child has fixed upon one or two questions it very frequently happens that he ceases to attend. This system, however, is useful when made to embrace all the facts which occurred in the lesson, and when all others are carefully excluded.

It sometimes happens that pupils run away from the lesson altogether and bring out 'crambo' questions, which they have been making up for days before. This is mere waste of time. The questioning, to be judicious, must refer solely to what was taught in the lesson; and when it does so, this system is an admirable means of fixing the facts permanently in the minds of the children.

(7.) Rewarded or punished.

(7.) *The pupils may be rewarded or punished.* A good system of reward and punishment is an essential part of school management; but the teacher must exercise the greatest judgment in the use of either. He ought not to be too hasty either in rewarding or punishing, lest he may prove unjust; neither ought he to punish or reward frequently, lest he may bring these correctives into disrepute as means to an end. The reward must be in reality a distinction, and the punishment, beyond doubt, a disgrace. But I shall enter upon this subject in another place.

Good in all, but none all good.

Those different means may be summed up by saying that 'There is good in all, and none all good.' A judicious union of all is, therefore, the true course. The pupils should be made 'to take places,' 'to hold out hands,' 'to answer when selected,' 'to answer together,' 'to correct each other's answers,' 'to examine themselves at the end of the lesson;' and they should do all these under proper laws of reward and punishment, as occasion offers. They should be blended together, but none should be permitted to interfere with the other. In this the teachers must act chiefly for themselves; but let me assure them that there is no mechanical means of keeping up the attention of the class which will prove effectual, unless the teaching itself is animated, varied, and attractive. We may compel attention, but, as Mr. Moseley says,[1] 'It is one thing for the teacher to *win* to himself the child's fixed attention—to bring about that state in which all the elements of its physical being are absorbed in its intellectual activity—and it is another to *compel* the semblance of this attention. The one is the resource of an unskilful and the other of a skilful teacher.' Where the children do not think or attend, except upon compulsion, it is almost certain that the teaching is bad.

(5.) *The state of the school in reference to the teacher's certificate.*

(5.) THE STATE OF THE SCHOOL IN REFERENCE TO THE TEACHER'S CERTIFICATE.

The difference in grade should accurately mark the difference in the state of the school; but as in all schools the same course of study is generally pursued, the difference must be sought chiefly in the quality of the teaching, and in the amount of skill exhibited in discipline and organisation. With the lowest grades there will always be found some mixture more or less of the mere mechanical element in the instruction, but such, when not in excess, must be overlooked as one of the necessary consequences of the very existence of such teachers in any system of national education. With the higher grades, however, any exhibition of such an element should be visited with marked censure, and the higher the grade the more severe the rebuke.

A first-class teacher must have a first-class school.

In fact, a first-class man ought to teach in first-class style and have a first-class school; and each of the other grades should equally exhibit methods of teaching and general results in correspondence with their rank. Promotion from one grade to another should depend upon this. It will not do to urge mere faithfulness in discharge of duty, for although this is a very valuable quality, it is not a claim for promotion, inasmuch as it is simply the condition upon which the office is held, for he who does not discharge his duty faithfully is dismissed—but to merit promotion a teacher must show that his school is not only well taught, but that it is taught as well as those conducted by the teachers in the grade to which he aspires.

---

[1] Min. of Council, 1845-6, vol. ii. p. 27.

Dr. Newell's opinion.

Dr. Newell, in his general report for 1859, thus writes upon this point: 'I maintain that every teacher seeking promotion should not only possess the additional attainments required of teachers in the grade he aspires to, but he should prove that his school is as superior to the schools conducted by teachers in the class he is anxious to leave, as the class he seeks is more respectable and better paid than their class. The information a teacher possesses should be regarded chiefly as a means for making him a good instructor of youth. Let every teacher thoroughly understand that his school must be effective according to each step in the ladder of classification, and that this is the first condition of promotion.'

(6.) JUNIOR CLASSES.

(6.) *Junior classes.* Character of a school depends upon them.

The character of a school depends very much upon the state in which these are found. The following extracts show the importance attached to them by inspectors of schools:—

Mr. Moseley.

Mr. Moseley says:[1] 'The instruction of the children who compose the junior division is more important than any other function of the school, and, if it be duly attended to, no other useful subject of the school will be neglected.' He says, in a note in the same page: 'I speak in this matter from experience. As inspector of the royal naval schools at Greenwich, I receive twice a year from those schools returns including the particulars referred to in the text. Very important results have followed from the attention which the masters have thus been induced to give to them. If asked to assign a cause which more than any other has contributed to the high standard of instruction attained in these schools, I should fix upon *this*.'

---

[1] Min. of Council, 1846-7, vol. i. p. 156.

Mr. Fletcher.

Mr. Fletcher reports,[1] that 'I am so convinced, indeed, that much of the indifference of the parent has the origin to which I allude (neglect of junior classes); that to do his duty by the "little ones" would be my advice to any young master desiring as soon as possible to fill his school, and then to keep it full.'

Mr. Jones.

Mr. Jones says:[2] 'The lower classes are starved intellectually and neglected in education. I find very few masters, even among those who have gained certificates, capable of teaching the lower classes; and, as a general rule, I am dissatisfied with the instruction given to them.'

Mr. Bowstead.

Mr. Sheridan.

Mr. Bowstead says:[3] 'I must press upon the teachers the importance of bestowing upon the junior classes their full share of attention.' Mr. Sheridan says:[4] 'In dealing with the junior classes, teachers should always bear in mind, (1) that the majority of the pupils in the junior division are quite old enough for the middle division—some, indeed, even for the senior—and, consequently, that the great object of the teacher should be to qualify them for advancement out of the junior division as soon as possible. (2) That owing to their inability to read intelligently, children are quite unable to

---

[1] Min. of Council, 1846-7, vol. ii. p. 66.

[2] Ibid. 1854, p. 601.

[3] Ibid. 1854, p. 632.

[4] Report of Commissioners of National Education in Ireland, 1858. Mr. Sheridan's Report.

help themselves, as long as they are detained in the junior division; that whatever progress they make in the first and second classes must necessarily be made under the immediate instruction of the teacher or of some one deputed by him; and, consequently, that it is not only an utter waste of time, but something worse, to assign tasks to be learned by such children at home, or to place them at desks by themselves "to prepare lessons." (3) That the reading, spelling, counting, and some expertness in adding numbers mentally, are all that is really necessary to qualify children for advancement out of the junior division, and consequently, that these should engage the teacher's *principal* attention.'

Dr. Newell.

Dr. Newell says:[1] 'An element of success will be found in teaching effectively the junior classes, whose progress is generally so low. To this point the attention of managers and inspectors should be constantly directed. The senior classes are more showy, and with most persons are thought of more importance than the junior; but here, as in many other instances, the humblest work is the most essential. The aim of the teacher should be to have *all* his classes properly prepared, but especially the junior classes which constitute the majority.'

I could give numerous other extracts, but as the space will not allow, I can only refer the reader to the books in which they may be seen. See note.[2]

Though most important, they are the most neglected.

Although these classes are the most important, they are by no means the most carefully attended to. It is generally up-hill work teaching young children,

---

[1] Report of Com. of National Education in Ireland, 1855. Dr. Newell's Report.

[2] Ibid. for the years 1856 to 1861 inclusive. Also, Min. of Council, 1846–7, vol. i. p. 408; 1846–7, vol. ii, pp. 55 and 65; 1851, p. 387; 1852–3, pp. 377 and 625; 1854-5, pp. 415, 601, 623, 632; 1857-8, p. 586; 1859–60, p. 154; 1860–1, pp. 19, 85, 102, and 209. Report of Education Commissioners, 1861, vol. i. p. 154; and vol. ii. pp. 92 and 226.

Cause. and in comparison with teaching the senior classes, much duller and more distressing, and hence teachers devote their principal time to the grown and advanced boys. They either teach the small children carelessly themselves, or wholly abandon them to monitors or assistants.

It is no doubt very natural to wish to spend most of one's labours upon those who can best appreciate them, but teachers should enter upon their duties with higher motives than the comparative pleasure they receive. They should take a conscientious view of the vast importance of what they have undertaken to perform, and always determine to do not what is most pleasing or most natural, but what is most correct. The junior classes form the vast majority of their charge, and, even for this reason alone, they ought to receive the greater portion of their time, as it is in them that the seeds of good or bad habits are sown; in them it is determined whether the children will progress rapidly, slowly, or not at all; whether they will leave school intelligent and educated, or ignorant and disgusted with learning, and therefore it is in them that the teachers must work. A faithful master will consider this, and will sacrifice his own tastes to his sense of rectitude and honour. He will not do what his own education would lead him to do from taking most pleasure in it, but only what his conscience tells him he ought to do. I admit that there is a strong temptation to do otherwise, and I always respect the man the more who overcomes it.

Senior cannot be neglected. The senior classes must by no means be neglected; they must receive, however, only that portion of the master's time to which they are fully entitled. It is found, indeed, in practice, that the low classes never clash to the detriment of the upper. Where the junior are well taught, all are well; when the junior are neglected, the senior classes, though chiefly attended to, are wanting in exactness and depth; for from the badness of the foundation the entire building partakes of weakness.

I have already shown how the several subjects ought to be taught to each class — to the junior as to the senior: it remains for me now but to say a few words upon the organization of the school, as much of the value of the results depends mainly upon this point.

(7.) ORGANIZATION.

(7.) *Time tables.*

Under this head I propose to treat chiefly of the 'time table' of the schools—the document which sets forth the routine of teaching pursued. Everyone who knows anything of this subject will admit that the formation of a time table is one of the most difficult portions of the teacher's duty; and that a good one is rarely found. When we consider the variety of subjects taught, we can easily understand the extreme difficulty attending any arrangement of them that would be deemed correct, and any allotment of time to each that would be adequate and suitable. Dr. Newell, in his Report for 1859, says that upon examination it will be found that eighty out of every hundred are badly and injudiciously constructed; I shall go further, and say that, out of the hundred, ninety and nine are more or less defective. A time table is a written statement of the business actually done in the school, in the order in which it is done, and with the time devoted to each separate portion of it. It is nothing more, and when it records this duty it is, as a time table, perfectly correct. The system of teaching and organization may be very bad, and yet the time table which records this may be above censure; and when I say that the documents actually met with are unsatisfactory, I am regarding them solely in accordance with what I have defined them to be. *They do not contain in writing the business of each*

Very difficult to form one.

Dr. Newell says that 80 per cent. are bad.

A time table is a written statement of the business done.

Those in use are not so.

class. The *verbal* statement of the master, of what he does almost invariably differs from his *written* statement as found on the time table.

Examples. I can best illustrate what I mean by actual time tables, which I found in use in this district when I took charge of it:—

EXAMPLE.

No. 1.

No. 1.

	JUNIOR DIVISION		SENIOR DIVISION		
Time	1st class	2nd class	Sequel	Third	Fourth
10 to 11	Preparing Lessons		Lesson Books and Tasks		
11 to 11¾	Lesson Books & Tasks		Writing		
11¾ to 12	Rolls called and attendance entered in Rept Book				
12 to 12½	Writing on Slates	• —	Parts of Speech	Parsing and Derivations	
12½ to 1	Requirements of Programme		Miscellaneous Subjects		
1 to 1½	Adding up Numbers		Arithmetic in its more advanced state		
1½ to 1¾	Preparing Lessons		Requirements of Programme		
1¾ to 3	Lesson Books		Lesson Books		

Remarks on. This is the copy of a time table found in the school of a teacher in the service of the Board since 1833. It may be considered in two ways, either as a *written statement* of what is actually done, or as to the *system* of teaching which it represents. If we take the second view we find:—(1) That the children of first and second classes *idle* (under the name of preparing lessons) for 1¼ hour daily. (2) That 'lesson books and tasks' occupy two hours. (3) That writing, mental addition, and requirements of programme (whatever that may mean), occupy thirty minutes each. (4) That there is no lesson on *grammar*, *geography*, or *slate arithmetic*, during the whole day to the junior division. And (5) that nothing is learned in second class from 12 to 12½ o'clock. If this had been in reality the system in force in this school, the teacher would have been grossly violating his duty; but upon questioning him I found, as I have found in the vast majority of cases, that the sheet which purported to be a time table was no time table at all. The way in which he *actually* discharged the duties of the day was as follows:— As each child came in he went to the master *to say* his tasks, or if a boy were saying his tasks at the time, he went to the desk and waited for his turn. After saying them, he went to the desk again, and, under the name of preparing lessons, idled until all the home lessons were over. During this time the junior classes, which had prepared no home lessons, idled also with their reading books open on the desks before them. The fourth class was then called up to a reading lesson, then the third, sequel, second, first, in succession; and as each finished to make room for its successor, the children went to the desks either 'to prepare lessons' or to write. This brought the business of the day up to 11¾ o'clock. How very different this is from what was *written* upon the time table! Suppose that the 'home lessons' had been heard in classes (his method of hearing them individually renders any time table impossible), the business of the school for the first hour, as taken down from his own lips, might be tabulated somewhat as shown in the following page.

How the business was actually done.

A table showing this.

Time	1st Class	2nd Class	Sequel	Third	Fourth
10.0 to 10.10	Preparing Lessons	Preparing Lessons	Preparing Lessons	Preparing Lessons	Tasks
10.10 to 10.20	do.	do.	do.	Tasks	Preparing Lessons
10.20 to 10.30	do.	do.	Tasks	Preparing Lessons	do.
10.30 to 10.40	do.	do.	Preparing Lessons	do.	Reading Lessons
10.40 to 10.50	do.	do.	do.	Reading Lessons	Preparing Lessons
10.50 to 11.0	do.	do.	Reading Lessons	Preparing Lessons	do.

Remarks on.

We thus see that the senior classes were engaged at what is called 'preparing lessons' for forty minutes out of the hour, and that this duty was not at all mentioned on the time table, though consuming two-thirds of the time. It is therefore very evident indeed, that this document was not a written statement of what was done during the day, and therefore no time table. It not only omitted what the children actually did do, in the shape of preparing lessons, but it deliberately stated what was untrue, for it represented the sequel class children, for instance, as at 'reading lessons and tasks' for forty minutes, whereas in reality they were only engaged at the two for twenty minutes.

Time did not refer to *each class*.

The master explained that he did not intend the time, as entered in the left-hand column, to refer to *each class*, but only to *each division*; he merely wished to state that inside the hour each child of the senior classes got a reading lesson and said his tasks, while the others were preparing for theirs, but under such an arrangement it would be impossible to tell how much time he devoted to teaching, and how much to tasks; and therefore it would be impossible to say whether the time given to each was adequate or not. This time table may be taken as a good example of the majority, but I give, in specimen No. 2, one in which the details are somewhat different.

SPECIMEN 2.

No. 2.

Time	1st Class	2nd Class	Sequel	Third	Fourth
10 to 10½	Preparing and up at Lessons	Preparing & reading Lessons.	Writing	Writing	Writing
10½ to 11	Writing	Writing	Preparing Lessons		
11 to 11¾	Mental Addition		Reading Lesson	Reading Lesson & parsing	Reading Lesson & parsing
11¾ to 12	Calling Rolls				
12 to 1	Preparing and reading Lesson	Sums	Arithmetic		
1 to 1½	Preparing Lessons		Writing from dictation		
1½ to 2	Reading Lessons	Reading Lessons & parts of speech	Reading Lesson and geography	Preparing, reading, & geography	As 3rd Class
2 to 3	Preparing Lessons	Examining notation tasks	Tasks		

This, I am happy to say, was not what it really professed to be; for if it did show the routine of duty in each class, the master would have been sadly neglecting the interests of his children.

From it, it would be impossible to know how **Defects of.** much time the fourth class, for instance, gave to the preparation of lessons in the day; how much to geography, how much to reading, or how much to tasks. The only thing *definitely* stated, and of which, therefore, the true time can be discovered, is that the pupils wrote for half an hour, and counted for a whole one.

I need not multiply examples. I shall merely trace the history of these two, as it may be instructive **History of these two given.**

to the teachers for whom I write. In school No. 1 I left the following observations:—

Observations on No. 1.

1. Lessons should not be prepared in school. This is a duty peculiarly adapted for home. But even supposing that it were admissible as a portion of the day's business, the junior classes could not at all engage profitably in it, owing to their inability to study by themselves. Preparing lessons is, therefore, in this case at least, but another name for 'idling;' and certainly one hour and three-quarters is too much to spend thus out of the school day.

2. Lesson Books and Tasks are subjects too dissimilar, and both too important, to be grouped under one time. The principle of grouping such subjects, if once allowed, would by a little extension remove all divisions of time whatever. The time devoted to each ought to have been stated.

3. From 10 to 11 o'clock three classes are on the floor at the same time; and, as there are but two teachers, one of them must idle. This objection applies to the arrangements in force from 12 to 12½ o'clock, from 12½ to 1 o'clock, and more forcibly still to all the remaining divisions of time.

4. 'Requirements of Programme' and 'Miscellaneous Subjects' are too indefinite; they would require the teacher to be always at hand to explain what was actually meant, whereas a good time table interprets itself.

5. Half an hour is too long for 'mental addition' at a time, while it is much too short for slate arithmetic. Three quarters of an hour is too long for writing; for, after twenty minutes or thirty minutes at farthest, it is found in practice that children, especially young ones, begin to idle and are certain to scribble. One hour and a quarter is too long for a single reading lesson in any class, but especially in the junior classes, whose attention it is so difficult to keep up.

6. No time is mentioned for arithmetic in the second or sequel classes, or for grammar, geography, and writing from dictation, in any class.

Observations on No. 2.

In school No. 2 I made observations similar to those marked 1 and 2 above, except that under 2 I added, 'Grammar may, however, be joined with Lesson Books in some cases on the time table, as it actually is in practice—these books forming the text from which to point out the parts of speech, and to parse—provided that in a note to the time table the usual plan adopted in teaching grammar, together with the time, as nearly as possible, spent at it be mentioned.'

I left the following additional observations:—

7. This time table is not practicable without the use of monitors; and, as these have not, as I have been informed, been introduced into this school, the arrangements detailed could not have been carried out. For instance, from 11 to 11¾ o'clock the five classes, with all their subdivisions, are engaged at duties which, if taught as the Time Table specifies, would require from seven to nine teachers.

8. The time, as entered in the left-hand column, does not refer, as it ought, to each subject in each class, but merely to what the master himself teaches. When, therefore, each class leaves the master, to admit of another's coming up to him, it goes to the desks to perform some business, the nature of which is not stated. The time table is, therefore, no time table, as it is not a written statement of what is actually done.

9. Too little time is given to 'reading lessons' and 'tasks' in the senior classes; and, indeed, generally, the time allowed to each subject is by no means in proportion to its importance.

Suggestions left in both cases to assist in making out time tables.

In both cases I left, in addition to these observations, the following suggestions as to the method by which the teachers ought to be guided in making out other documents:—

1. There should be just as many classes on the floor, receiving such lessons as are best taught there, as there are teachers and monitors in the school, while the others are engaged at the desks either at *slates* or *paper*.

2. No 'preparation of lessons' to be permitted in school.

3. The full duty of each class, with the exact time at each subject, to be specified.

4. Arithmetic is to be taught as a desk lesson from text books, and as a floor lesson without books; and, therefore, it must occur at least twice on the 'time table.'

5. The separate reading classes may be judiciously grouped to receive united lessons in grammar, geography, arithmetic, &c.

6. Home lessons must never be heard *individually*, but always in *classes*.

7. Allow for each subject a time proportionate to its importance. Some subjects may be taught twice a week, others three times, while others must be daily lessons.

8. Do not permit of too many changes during the day.

9. Those subjects are to follow each other which are of different kinds; those that are mechanical to follow those that require much mental effort, that is, as far as practicable. Writing exercises should not be introduced after play immediately, or after the opening of the schools, as the hands of the pupils are then very likely to be unsteady.

10. These suggestions refer chiefly to the system of teaching which ought to be pursued; but to make the time table a record of the exact details of that system, proceed as follows:—

(1.) Enter in the proper column the exact duty of the class which the master first calls up, and opposite to it, on the left hand, place the time spent with it. Thus, if you begin with the fourth class reading lesson, fill the columns as follows:—

Time	1st Class	2nd Class	Sequel	3rd Class	4th Class
10 to 10.45					Reading Book

(forty-five minutes being about the time a reading lesson for an advanced class should occupy).

(2.) When this is done, the blank spaces must then be filled up. To do so, ask the following questions: 'During the time the fourth class is reading, what is the third class doing?' 'During the same time, what is sequel class doing?' 'What second?' 'What first?' and write the answers to them in the proper places. *But be sure that the answers are taken from the actual business of the school.*

(3.) Then take up another class, and mark what you teach it, with the time so engaged, in their proper places, and then fill up the blanks as before.

Note. If these three suggestions be fully carried out, the time table will certainly be a record of the duty of each class, whether that duty be correct or not.

I regret to say that the time tables made out in place of those condemned were very far from being better. In one of them nearly all the faults previously pointed out occurred again; while, in the other, I found that the teacher had allowed three quarters of an hour daily to each of the following subjects—writing, mental addition, notation, geography, and mental arithmetic; a time entirely out of proportion to the importance of any of them.

These time tables are taken from schools conducted by highly-classed teachers, and the result, after I had taken so much pains, fully convinces me that intelligence, even when accompanied with suitable instructions, is not a sufficient guarantee either that the *system* of teaching and organisation will be good, or that the time table will faithfully record it. A little force is necessary to get what is correct; for in most cases the teachers are very indifferent as to what kind of a document they show. This indifference I could fully establish by extracts from my reports upon schools inspected. It is partially accounted for by the fact that teachers teach without reference to the time table at all, and they consider that they are doing the best possible so long as they themselves are constantly engaged in some class. But this is a great mistake; the master may be very busy, and yet three-fourths of his school very idle. If the actual system which they practise day after day were written out in all its details, it would astonish and shock them.

Teachers very indifferent as to their time tables.

Remarks on the hints just given.

I shall now take up the 'Hints on making out a Time Table' in their order, for the purpose of explaining each more fully.

(1.) The classes on the floor to correspond with the number of teachers available.

First. '*As many classes as there are teachers should be on the floor receiving such lessons as are best taught there, while the others are engaged in the desks either on slates or paper.*'

The word class is to be taken as applying to any collection of children under one teacher, receiving instruction on the same subject. Thus, the first and second, if joined together, form a class, although generally they are two. The word *teacher* applies to all who teach, whether actually paid and recognised or not.

This rule is founded on the principle, that the arrangement of the classes and the sequence of the different duties depend primarily upon the teaching power made use of. This is a principle so manifest as to be almost self-evident, and yet the vast majority of time tables, even of those constructed by organisers of schools, fail from overlooking it. I have before me a *time table* which the author says 'is suitable for the great majority of ordinary boys' schools, whatever may be the attendance, *or the number of teachers*.' But in my opinion a *time table*

Many time tables fail from overlooking this truism.

adapted to a school in which there were three recognised teachers, would not be at all adapted to one in which there were only two, and much less could it be carried out where there was but one, without the employment of unpaid monitors, to an extent which would not be tolerated by the parents of the children, or, if it were, which could not fail to be prejudicial to the true interests of the school.

Teaching power ought to determine the arrangement and even the *number* of the classes.

The teaching power ought to determine the general arrangement of the school business, and also it ought to fix the exact *number* of the classes, for the more classes there are, the less can each receive of the master's personal attention. If there are five classes, he could give to each, out of a school day of five hours, exactly one hour of his own time; but if the classes to be taught separately are eight or ten in number, as they generally are, he could only give from thirty to thirty-eight minutes. The size of the class and the attendance in school have but little to do with the matter. The teaching power ought properly speaking to increase not so much with the attendance as with the number of classes. When a teacher is unaided he should always be endeavouring to lessen, as far as possible, the number of his classes. This he may do in the senior division of his school, by making the highest class read in two books alternately—in third and fourth for instance.

Size of the class not so important as the number of classes.

An unaided teacher should always be trying to lessen the number of his classes.

Objection against.

I know that an inequality in the acquirements of children grouped together is a serious evil, but I also know that it is necessary very frequently to encounter it rather than encounter the more serious evil of making the classification too minute for the teaching staff which the school can support. In the management of primary schools we are often driven to take a choice of evils, as in this case.

Must often choose between two evils.

Subjects for floor teaching,

When the classes are on the floor they should receive the lessons which can be most appropriately and effectively given there, such as lessons in reading, grammar, geography, arithmetic and general science (chiefly principles of), spelling, &c.; and when in the desks they must be engaged either on slates or paper—such as in writing from dictation, in composition, in making figures, in arithmetic, book-keeping, &c., and, in girls' schools, in needlework. They ought never to be engaged in conning over the reading-books by themselves in the desks. There is no rule so openly and so commonly violated as that which refers to the desk business. But the teacher who finds that his children are not occupied in some such way as that just stated may rest assured that they are not receiving from his school the benefits it ought to confer.

and for desk business.

Mr. Arnold says 'a boy gets on in proportion to his time in desks.'

Mr. Arnold says that 'a boy gets on in proportion to the time he is properly engaged at the desks;' without exactly going this length I have no hesitation in saying that the duty performed there has a most important influence upon the boy's education, for, from being thrown more upon his own resources, he learns the valuable lesson of self-exertion, and acquires confidence in his own powers and a capability of using them in overcoming or, at least, struggling with difficulties.

(2.) Preparation of lessons to be excluded.

Second. 'No duty under the name of preparation of lessons to be permitted in school.'

This is the duty generally assigned to the children at the desks instead of the duties, mentioned above, which ought to be assigned, and it consists in getting them to pore over the book in which they will be called upon to answer when up at class, under the expectation that they will be better able to pass—at least this is generally the cause given when one inquires as to the expected results, the true cause being, however, that pupils are set to prepare lessons, because the teachers do not know how to engage them profitably while they are themselves occupied in teaching on the floor.

Mr. Keenan on this.

Mr. Keenan says, in his general report for 1855,[1] 'I have come to the conclusion, after the most careful consideration, during a long experience of school management and school inspection, that this "preparing lessons" during school hours is the most pernicious and nugatory employment to which children can be put. I have rarely seen children "preparing lessons" in a schoolroom who were not gazing at the book rather than reading it, and who did not rise from the counterfeit afflicted with drowsiness, listlessness, and sluggishness. When teachers are asked why they resort to this baneful expedient, they reply by declaring their inability to invent employment for those classes that are not immediately under tuition; but I cannot but regard this *as an exhibition of professional weakness, if not of utter incapacity on the part of those who state so*.'

Teachers' reasons considered.

Some teachers state that the children are so busily engaged at home in the mornings and evenings that they cannot possibly prepare there the reading lesson, or the ordinary tasks, and that therefore some time must necessarily be allowed for this duty in the school. This however is not correct; there is no child who could not find some small period of relaxation from work in which, if inclined, he could prepare the usual lessons, and this I have proved to be the case by utterly excluding the duty from the school course in this district, and insisting upon its being done at home. I find that it is done now even in the very places where the teachers were the loudest in proclaiming its impossibility. The fact is, that so long as pupils are allowed to prepare the tasks, &c., in school, there is a strong temptation held out to them to neglect their preparation at home. 'To afford children opportunities in the schoolroom to prepare lessons is no encouragement to them to become students at home; and its natural effect is to make the interval between the school hours of to-day and those of to-morrow an idle, thoughtless, destructive hiatus of daily occurrence in their education.'[1]

---

[1] Report of Commissioners of National Education, Ireland, for 1855.

Wholly unsuited for young children.

But however wrong it is in the case of grown boys, it is exceedingly culpable and absurd in the case of young children in the junior classes, as they are quite unable to help themselves. These, however, are the very classes most frequently placed to learn lessons in the seats.

Mr. Sheridan.

The following moiety of a time table shows this. 'It is,' Mr. Sheridan says,[2] 'an exact copy of one which I found in a certain school, and something similar to which I found in at least a dozen others.'

Time	First Class	Second Class
10 to 10¾	½ hour writing on slates ¼ hour preparing lessons	Writing on paper Preparing Lessons
10¾ to 12¼	Preparing Lessons	Preparing Lessons
12¼ to 1	¼ hour Lessons ½ hour Recreation	Lessons Recreation
1 to 1¾	¼ hour Lessons ½ hour Preparing Lessons	Lessons Preparing Lessons
1¾ to 3¼	Preparing Lessons	Arithmetic
3¼ to 4	Preparing Lessons	¼ hour Preparing Lessons ½ hour Geography

---

[1] Report of Commissioners of National Education, Ireland, for 1855. Mr. Keenan's Reports.

See also his Report for 1856, for a description of a school where preparation of lessons is allowed.

[2] Report of Commissioners of National Education, Ireland, 1858.

That is, the lowest class 'prepared lessons' for four hours and a half, and the next for two hours and a quarter. The more utterly unable they were to perform the task, the longer they were kept at it.

This occupation is so strongly condemned on all hands, that it must be banished out of every primary school. And the only maxim followed must be, that '*every child at every moment of the day shall be employed at some one of those duties for which a school is properly intended.*' This active employment will not only secure improvement directly, but indirectly also, by promoting good order and checking noise. 'Nothing,' says Lancaster, 'conduces so much to good order, or so effectually prevents the natural vivacity of children from being troublesome in school, as the active employment of every boy in it.'

Pupils must be actively employed.

This will promote order also.

Lancaster.

Third. '*The full duty of each class must be specified, together with the exact time at each thing.*'

(3.) Full duty and full time of each class to be specified.

A time table should show to every one capable of understanding it, (1) What each child does during the day; and (2) The time he spends at each subject. Occasionally an exception to this general rule is allowable. Thus, for instance, the 'reading book lesson' consists of reading, meanings of words, subject matter read, and spelling, to which is sometimes added an exercise on parsing. Again, the 'home lessons' consist of grammar, geography, spelling book, tables, composition, &c., and to enter the time for each minute lesson is not only uncalled for, but wrong.

Exceptions allowable.

A strict adherence to a time table drawn out so much in detail would be impossible, or at best it would cramp the action of the master so much and so injudiciously as to interfere with his general usefulness. It is quite sufficient to mark the time for 'reading books' and the time for 'home lessons, taken as a whole.

It will not do, however, to unite subjects which are not generally taught together, or which are in themselves of importance. Thus, it would be wrong to say 'reading and dictation, one hour;' 'geography and arithmetic, one hour and a half,' &c.

ny parent ould be le to find om it what taught to s boys, and w long ey are ught.

A time table should be so definite that any parent should be able to discover from it, without the teacher's aid, whether his child was taught the important branches of reading, writing, dictation, geography, arithmetic, &c., in what order he was taught them, and for how long. He should, in fact, be able to form a correct estimate of what the school professes to do for his child, provided that he is sent to it.

In general, the time set apart for each subject is not accurately stated. The teachers regard the time as referring to *all* the classes instead of to *each*.

xample defects.

Thus, suppose the following:—

Time	1st Class	2nd Class	Sequel	Third
10 to 10¾	Reading Lesson	Reading Lesson	Reading Lesson	Arithmetic

which in reality means that each of the first three classes receives a reading lesson of forty-five minutes, while the other class practises arithmetic for the same time; but the teachers generally intend such a statement of duty to mean that the three classes read inside the forty-five minutes—that, in fact, the forty-five minutes are divided among them, though not necessarily by giving fifteen minutes to each. They intend, however, the entire time to be understood as given to the arithmetic. We cannot thus find what time is devoted to reading in the first, or second, or sequel; and, generally, it will be found that it is in the reading that the time table is most indefinite. The time spent at writing, arithmetic, geography, &c., is generally entered correctly, but the time for lesson books must only be guessed at.

Fourth. '*Arithmetic must be learned in the desks from books, and must be taught on the floor without books by the master himself.*'

(4.) Two lessons on arithmetic—floor and desks.

This was a suggestion merely to ensure the teaching of arithmetic in classes under the master's eye, for the purpose of promoting quickness, testing rules passed over, and teaching notation, numeration, meanings of terms, proofs of rules, &c., which are properly taught in classes. A small portion of the day should be set apart for such purposes; and this should be longer in the junior division than in the senior.

Why this suggestion was left.

Fifth. '*The classes may be judiciously grouped to receive united lessons in grammar, geography, arithmetic,*' *&c.*

(5.) Classes to be grouped.

By referring to a previous observation, it will be seen that one great object ought to be to lessen the number of classes as much as possible. This may be judiciously done by uniting them occasionally. The third and fourth, for instance, may sometimes be joined to receive a lesson on the map, or on arithmetic, grammar, dictation, &c.; while the second and sequel may be united for a map lesson, arithmetic, writing, and, occasionally, for reading, tables, &c.; thus forming only two classes out of four, and therefore doubling the time for each. The classes so formed must be treated exactly as if they were learning the same thing. If a class learning Simple Proportion, for instance, be joined with one in Reduction, they must both be taught what both understand. It will not do to give out a question in Proportion to one, and then a question in Reduction to the other; for such a course is not grouping at all; it is virtually teaching two distinct classes, distinct in every way except in the mere accident of standing close to each other on the floor.

Nature of grouping.

Sixth. '*Home lessons must not be heard individually, but always in classes.*'

(6.) Home lessons to be heard in drafts, &c.

See, for remarks upon this, page 347.

(7.) Each subject must get a time in proportion to its importance.

Seventh. 'Allow for each subject a time proportionate to its importance.'

The important subjects are reading, writing, and arithmetic, and these must be taught as daily lessons; the others may be taught on alternate days, if it is found necessary to do so. Of the three important subjects, reading is the most important, as it is the basis of all teaching. In the junior classes, therefore, it must form the chief portion of the children's duty. As pupils advance, the time for reading may be shortened, as they will have acquired that mechanical dexterity which will prevent the necessity of explanations and minute directions. But even up till the close of the course ample time must be allowed to make the reading intellectual, easy, and fluent.

Reading much is an essential element of success. I think the first class should receive three lessons in reading daily; the second, two at the least; and the others, one. It would be better, however, if the first and second could receive three, and the next class two; one is, in any case, sufficient for the advanced classes.

(8.) Changes not to be many.

Eighth. 'Do not permit too many changes during the day.'

The changes frequently recommended are half-hour changes—no lesson lasting longer than this, and all lessons lasting the full time. This is not good either in theory or practice. All lessons are not of equal importance, and, therefore, should not receive equal times. A half-hour is also too little for most subjects. None but a very skilful teacher can teach a lesson well in this time, especially a reading lesson; and as the majority of teachers are anything but skilful, a time table so arranged must prove ineffectual.

(9.) Why given.

Ninth. 'Subjects are to follow each other which are of different kinds.'

This rule is merely inserted to prevent the children from feeling wearied by the constant strain required when mechanical and mental subjects do not follow each other in proper order.

(10.) Method of entering the duty on the sheet explained.

Tenth. The three rules given under this head refer to the mere entry of the work on the sheet. They have nothing to do with the quality of the work itself. The difficulty of teaching a school arises from the difficulty of keeping the children actively employed; but the difficulty of making out a time table is in the method adopted. The two are perfectly distinct. To succeed in overcoming the one requires a man of rare ability, of superior professional skill, and great zeal and faithfulness; but to meet the other requires simply ordinary intelligence and care. Teachers, in making out *time tables*, forget that they must be copies of what is *actually* going on in their schools. They sit down and devise arrangements on paper, and then try to force the organisation of their schools to agree with what they have thus planned. This fault is almost universal, and is the fruitful source of so many complaints upon the teachers' parts of the difficulty of adhering to the time tables of their schools. If teachers would but remember what a time table is, they would not fall into this error. It is a mere written statement of what is done, and, therefore, before any can be drawn up properly, the system of which it proposes to be a copy must be in actual work. Some men can draw up a time table without seeing the working of a school, but it is only by forming in their imagination a picture of what they seek to represent. But even in this case the time table is but a copy—a copy of the details of this imaginary picture.

Those who can do this are very few. To do it well requires a mind capable of conceiving, arranging, and remembering the multifarious duties of an entire day's work for every child. A teacher need not place this strain upon his imagination. He has the actual materials upon which to work, and, by availing himself of them, he will be saved a great deal of trouble, and run no risk of failure. The proper course is, first, to teach the school as it ought to be taught, and then to copy the details of that teaching exactly into the time table. To bring the school up to the proper standard, I would recommend a plan like the following to be adopted:—On Monday, teach the classes upon whatever plan you consider best, and make an entry on a slate of what each class actually did, the time engaged at each subject, and the nature of the teaching power employed. On that evening look over this; and make alterations wherever you may consider such necessary, either as to the quantity of work done, the time in which it was done, the order of its parts, or the arrangement of the teachers; being guided, however, by the day's experience. On Tuesday try this; on that evening revise it, and so on, until you become satisfied that every child is actively engaged at the business proper for a school; *that he receives as much as possible of your own direct tuition, and that his time in the desks is profitably spent, under proper supervision.*

When this is done, work the school for a few days in accordance with it, and then proceed to copy the details on the proper sheet.

I am not an advocate for model time tables. I think every teacher and manager of a school ought to make out for themselves that which is best suited to the circumstances of the locality. I trust that the hints just given will assist them in doing this.[1]

Before concluding this subject, I may add, (1) that

---

[1] For systems of organisation, and plans of time tables, see Manual of Method, by Rev. W. Ross, p. 170. Joyce's School Management, part 1. Currie's School Management, chapter on Organisation. Min. of Council, 1848-9, vol. ii. p. 580; 1851–2, p. 310; 1852–3, p. 1107; 1855–6, p. 572; 1856–7, pp. 417 and 729; 1857–8, p. 677; 1859, p. 260. Mr. Keenan's Report upon School Organisation. Report of Commissioners of National Education, Ireland, 1856.

Play.

less time ought to be given to 'play' in country schools than in town schools; (2) that it is sometimes found of great advantage to let the junior classes out to play by themselves, so that the room may be quiet, for the better carrying on of such a lesson as dictation, &c., in the senior classes; (3) that when the pupils go home to dinner or luncheon in the middle of the day, what is called the play-time ought not to be given; (4) that in no case should it exceed thirty minutes, and that, in the majority of cases, it should range from ten minutes to twenty; (5) that the children should know all the details for their respective classes; and (6) *that, when once made out, it must be strictly adhered to.*

Children must know the time tables. It must be carefully adhered to.

8. Monitors.

(8.) *Monitors.*

Must be used.

Conditions.

In most schools, teachers will be obliged to make use of the assistance of monitors, paid or unpaid; but in doing this they must be careful to use them only when they cannot do otherwise, to appoint none but steady smart lads to the office, and to place them at such duties only as they will be capable of discharging. If these conditions are observed faithfully, a considerable advantage will result to the school in general, and, as a consequence, to each particular child, the monitors themselves among the number.

Prejudice against.

Cause of.

There is at present a serious prejudice against the use of monitors at all; but this has arisen from ignorance of their true functions, and from their being, in consequence of that ignorance, set to discharge duties for which they were wholly unfitted. The master used them, not to keep children engaged at some useful occupation who would otherwise idle, but either that he might do little himself under the name of superintending, or that he might devote the principal portion of his time to the advanced classes. When acting solely as a *superintendent*, he was justly regarded by the people as no *teacher*; for it is one thing to make others teach their best—which, after all, may be of small worth—and quite another thing to teach your best yourself. The teacher is paid for his services as a *teacher*, and the people have a right to receive the utmost possible of what they have purchased. They know that they are not entitled to all of the master's time; but they also know that they are entitled to some of it, and that they do not receive that portion under the superintending system. Had they received it fairly, they could not have objected to have received, *in addition*, the labours of others, no matter how less valuable those labours might have been. It is in thus supplementing the just and adequate exertions of the master that monitors are of value.

Again, when the master devoted his time almost wholly to the senior classes, abandoning the others to the charge of their schoolfellows, he could not reply to the just complaints made by the parents of the children thus neglected. These complaints were loud and urgent, and were a great means of spreading that opposition to the name of monitors in a school which at present exists.

Mr. Allen's views.

The Rev. J. Allen thus writes of monitors: 'Under this conviction I have been long desirous to get rid of the use of monitors, except for such parts of school discipline as approach to what is purely mechanical. The advocates of the monitorial system of instruction remind us that it is not their plan that one ignorant child should teach another, but that the schoolmaster should diligently prepare his monitors, and that these, when instructed by him, should become so many channels through which the teaching, derived from him as the source, should be carried over the whole school. But if it be granted that in ordinary cases the master has energy enough to do intellectually for his monitors what is needed, the most important point yet remains as to the power of moral training which such instructors are likely to exercise over their pupils.'

Mr. Cook.

The Rev. Mr. Cook writes thus for the same year: 'We cannot reflect upon the age or requirements of monitors without being struck with the absurdity of expecting any good results from the use of monitors.'

Mr. Mosele

The Rev. Mr. Moseley gives several examples, derived from his own experience of schools, to prove the following statements:

1. That the means of instruction afforded by the monitorial system in great schools, however well conducted, are inadequate.

2. The unfavourable influence of the monitorial system in small schools is, however, yet more obvious than in large ones.

3. One of the characteristic faults of the monitorial system is the difficulty of getting up, by means of it, the efficiency of a school when it has been allowed to fall, or of creating an efficient school out of a mass of ignorant children.

These are against wha is called th 'monitorial system.'

These objections are against the monitorial system, and not against the occasional use of monitors. The system thus condemned is that of Bell and Lancaster, in which the children were arranged in a number of little classes each with a monitor at its head, and in which the master's duty was confined to the teaching of these monitors, to seeing that they did their duty to the best of their ability, and to the maintenance of order.[1]

---

[1] In the following extract from Mr. Keenan's Report, taken from the Report of the Commissioners of National Education, Ireland, for 1856, the history of monitors as aids to teaching is ably traced from the introduction of the 'monitorial system' into public schools to its rejection; and from its re-introduction in an improved form up to the present time. He says:

'Large schools are a modern invention. Until the education of the people became a topic of national concern—which is an epoch of no very remote date—the idea of large schools,

What monitors may be used for.

Monitors may be used to teach a spelling lesson, a lesson on tables, to teach the alphabet, &c., and

or of organisation of any kind, or of systems of teaching, occurred to nobody; or at all events it was an idea which no one published to the world. Frankè in Germany, the Abbé de la Salle in France, and others in the seventeenth and eighteenth centuries, began to dream of reforms in popular education. Schools were established on new principles, and large numbers of children were admitted to them. Coeval with the admission of large numbers of children into the same school, is the discovery of the difficulty of managing them. The individual system of teaching required an enormous staff of masters, and it was a system which educationists universally condemned in relation to public schools; but with one or two masters how were the large schools to be conducted? In the year 1680, the Abbé de la Salle, then a canon in the Cathedral Church of Rheims, after establishing the Brothers of the Christian Doctrine, originated the first great remedy, the system of simultaneous instruction, by which a large class, or sometimes the whole school, could be instructed by the same person. The education of a large number now seemed practicable; the system spread in France; it was tried in Germany; and finally, Pestalozzi made it the groundwork of his plan of school organisation, and improved upon it very considerably. The simultaneous system had its defects; it was deficient in exactness from operating upon heterogeneous materials, an equal classification being out of the question; but it was the first great reform in the economy of teaching which was tried and pursued to any extent. Some twenty years before the opening of De la Salle's first school at Rheims, were published the last of the writings of Pietro della Valle (Il Pellegrino), the celebrated traveller in Turkey, Egypt, Persia, India, &c., an English translation of part of which appeared in 1665; French, German, and Dutch translations having also been at various times published. Della Valle describes the habits and manners of the people of the countries in which he sojourned, with ability and accuracy, and amongst customs which he notices as being of ancient origin in the East, is an educational one, according to which children teach one another, that is, practise "*mutual instruction.*" Della Valle told the remarkable circumstance with no purpose, and although it circulated in print in many languages, it appears to have excited nothing like attention—a circumstance which, considering the time of its publication, does not strike a person as at all remarkable. In 1780, according to Count Laborde, in his "Plan d'Education pour les enfans pauvres," the mutual instruction system was, to some extent, tried by the Chevalier Paulet in France. Dr. Bell went to Madras in the year 1789. The Military Orphan Asylum at that place afforded his benevolent disposition a favourable field for its exercise, and whether he had other minor duties of this sort; or they may be used in superintending children engaged at the silent

ever heard or read of the mutual instruction principle or not, he at all events struck upon the plan which solved the difficulty as to limited teaching power applied to large numbers of pupils. One day, observing a young Malabar boy, who belonged to the Orphanage, writing on sand, and thinking the plan a good one for the teaching of writing, he requested the usher of the school to try it. The usher refused to adopt the strange system. Dr. Bell then got one of the senior boys to try it, and the experiment of a boy teaching boys was so successful, that he extended the system until he had the school regularly conducted on an organisation based upon monitorial assistance. This was in the year 1791. The Madras Government, impressed with the utility of the scheme, patronised it warmly, and no experiment was ever tried under more favourable auspices or with more immediate success. Dr. Bell returned to England in 1797, published an account of his system and even organised a school in London and another afterwards at Swanage, upon the monitorial plan. In the year 1798 Joseph Lancaster opened the Borough-road School for the instruction of poor children; but he does not appear to have established his school with the view of carrying out any precise educational reform, unless the cheapness of the tuition be called a reform, for he says in his own account of the school:—"I knew of no modes of tuition but those usually in practice, and I had a practical knowledge of them." In another place he says:—"Though a system of order was easily established, a new system of tuition was another thing, and to do this I found myself most unexpectedly and gradually advancing." In the same account he says:—"Many such experiments have been made, which proved quite useless, and such as I should never attempt again. In other cases, I have gone the wrong way to work, and accidentally stumbled on the very object I was in quest of. The result has been a new and efficient system of education; the principle of which is not only adapted to large manufacturing districts, but, with little variation in the mode of applying it, to all the poor of the country, and to village schools." Lancaster soon became an enthusiast about the monitorial system; he looked upon it as his own offspring, and fought a hard battle afterwards for the credit of having originated it. He certainly was not before Bell, no more than Bell was before the Orientals, amongst whom an accident had suggested the scheme to him, or before Paulet the Frenchman; but Lancaster was the first to lead people to believe that multitudes could be as easily taught as individuals, and that a school to work well required only a superintendent to start it into motion at first, and afterwards to watch its progress. Prudence is seldom the companion of enthusiasm, and in the excitement of the moment, Lancaster made most extravagant occupation of the desks. They can also be judiciously employed as monitors of order, &c. But in

professions as to the magic spell of the monitorial system. In 1803 the following announcement was issued to the public:—

'"The boys' school was instituted as a *free* school, by Joseph Lancaster, in 1801; and is actually extended to ***seven hundred boys***, who are instructed upon a plan entirely new; by means of which ONE MASTER alone can educate *one thousand boys* in reading, writing, and arithmetic, as effectually, and with as little trouble, as twenty or thirty have ever been instructed by the usual modes of tuition."

'The leading men of the time liberally supported the institution, the King himself subscribed largely and became its patron; everybody seemed to believe that a great discovery had been made, and to hope that a grand national amelioration would result from it. Schools were established in various parts of England, Ireland, and Scotland, upon the system, and Lancaster himself was invited to inaugurate and to organise many of them. On the Continent the interest in the new system was as great as at home. In Germany it was taken up with the same warmth as in England; in France it also got a footing; in Switzerland the intelligent and philosophic Pere Girard brought the deepest wisdom and coolest investigation to bear upon it. If it were sound in principle, it appeared to have the promise of a bright page in the annals of education; but enthusiasts often injure the good cause they endeavour to advance, and this truism was never more lamentably exemplified than in the case of the monitorial system. Its supporters professed too much, tried too much, and accomplished too little. The string of a harp at a proper tension gives a pleasing tone when touched; but try to stretch it to an unlimited length, and it breaks and loses all quality of sound. The monitorial system was stretched too far; its promoters in most cases forgot to prepare the monitors properly for their duties, and they destroyed their pupilary capacities entirely by occupying them for nearly the whole length of the day as teachers. The reaction was quite as sudden and forcible as the original adoption of the system; on all sides it was heard that the monitorial system was full of evil; the Prussian Government condemned it; the Germans, in fact, almost universally prohibited it; the French Government pronounced it "la plus mauvaise de toutes les méthodes celle qui est la cause habituelle de tant d'abus et de désordres;" and Mr. Joseph Kay says, that whenever he addressed a German teacher on the subject of supplying monitors, he was immediately answered—"Oh, we had enough of your Lancasterian methods; depend upon it we shall never try them again." Mr. David Stow, of Glasgow, in his "Training System," also pronounces very decidedly against monitors. He says;—"The attempt to communicate my opinion they cannot teach reading well. They have neither the skill which is requisite, nor the

knowledge or to train by monitors, deceives the public and ourselves, by raising undue expectations." The supporters and the opponents of the system ran into extremes; one party said that a thousand children required only one adult master, another said that such a number of children required twenty masters; one rejected the master as unnecessary and less useful than the monitors, the other rejected the monitors because their teaching was not as effective as that of the masters; or, as it may be represented, one rejected the gold because it was less *useful* than the iron, the other rejected the iron because it was less *valuable* than the gold; there was no end to the controversy; no mean to be struck between them; and the longer the enthusiasts argued, the more unlikely were they to agree. I believe that the mistakes of the promoters of the monitorial system were, that they did not select children who were sufficiently mature and intelligent for their duties; that they required them to teach more than they were prepared for; that the balance of the double capacity of the monitor, as teacher and pupil, was not maintained; that there was no course of special instruction given to them to qualify them for their duties and to make up for whatever time they were employed in teaching; that they were not required to prepare themselves for the lessons which they were called upon to teach; that they were employed at random, had charge of no particular class, and had no set course of instruction to impart; that the teachers were not properly drilled, trained, or qualified to control or prepare the monitors for their duties, and, above all, that the main, the higher, the essential part of the education of the pupils, was not given by the teachers themselves. These were grievous errors to have made; errors which show it to be no wonder that the monitorial system came into disrepute. The most fatal error of all, however, the error from which all the other evils sprang, was that alluded to above, in respect to the double capacity of the monitor as teacher and pupil. Immediately that the pupil's employment as a monitor interfered with his business as a pupil, the fabric began to totter; when the monitor remained teaching for the whole length of the day, the old structure was doomed, it soon crumbled away, and lay in ruins and unrespected dust.. It is, however, no imputation upon the strength of a horse, if you place an overload upon his shoulders, and find him unable to carry it; it does not reflect upon the floating quality of a vessel, if you add pile upon pile to the cargo, and find it at last to sink; it does not prove a carpenter to be worthless, if he fail to slate the house, chisel the cornice-stones, and paint the panels of the doors; and it certainly was no stigma upon the monitorial system to have been so roughly handled, so inconsiderately and absurdly tested, and so immoderately employed, knowledge of the meanings of words essentially necessary to make reading intelligent. They fail

whilst so egregiously misunderstood, and then to have experienced failure, and a general loss of public confidence. The schools of those who are indisposed to avail themselves of monitorial assistance are, as might naturally be expected, exhibiting the deficiencies and imperfections of the large school with an inadequate teaching staff. Mr. Kay observes, "The teachers are not assisted by monitors in Germany, as in Switzerland, France, and England; and this, I think, a very great error. I have often been in schools in Prussia, where the teacher had about 100 children, of different degrees of proficiency, to instruct in the same class-room, without any assistance whatever; the consequence was, that while he was teaching one class, the others were in disorder, and making noise enough to distract the attention of the children who were receiving instruction, as well as that of the teacher who was giving it." Unless the children are permitted to remain uninstructed, in a school where the attendance is large, and the monitorial system not resorted to, a large staff of competent teachers must be employed to do a great deal which could be as well, if not better, done by monitors; and this involves the country in very considerable expense. Mr. Kay refers to this point. "In Prussia," he says, "where they have no monitors, they are obliged to augment the number of their teachers very considerably; and I have found in a small school, which could have been very easily managed by one teacher and some well-trained monitors, as many as three teachers, for each of whom good salaries had to be provided, as well as houses and gardens." Thus the strong reaction against the monitorial system was nearly as deep an error as the original mismanagement of the disciples of Lancaster and Bell. It is quite evident, however, from the tone of recent writers, that the Germans and others are coming to a sense of their long standing mistake on this question. Mr. Kay, speaking of the Prussians, says, "They have resolved, as I have already mentioned, to employ no monitors in the schools; and as they are conscious that without them they require a much greater number of teachers, they have directed the inspectors to inform the county magistrates when two or more teachers are required by a parish, and the magistrates are, in these cases, authorised to oblige the parochial authorities to elect and support as many additional teachers as are necessary. It often happens, however, that a parish, although very populous, is very poor, and unable to do more than support one teacher, even when the number of its children, of an age to attend school, is 120 or 130. In these cases, all the children, of different ages and different degrees of proficiency, are assembled in one school-room, under the care of only one teacher. Now it is evident, that no matter how clever such a teacher may be, it is utterly impossible for him to conduct also in zeal and earnestness. I have found the following plan of using them very good. Suppose

Plan of

such a school properly. Even if the children were all of the same degree of proficiency, it would be impossible for one man to promote the individual development and education of so many scholars; how much more so, when they are of different ages, and of different degrees of proficiency? This is the great fault of the Prussian village schools. They are, at present, actually retarding the progress of their own education by their too blind fear of doing so. They fear the evil effects of our old, absurd monitorial systems so much, as to refuse to reason calmly on the subject of monitorial assistance. But the evil will soon bring its own cure. They find that many parishes, with more than a hundred children, cannot afford to support more than one teacher; they clearly see that one is not enough for so many; and that, owing to this paucity of masters, the education of the less intelligent children is neglected. They are really anxious to perfect their schools; and where there is such a will, and such an experience as is possessed by the educational authorities in Prussia, or, in other words, by the Prussian people themselves, there the remedy will soon be applied. They are already, in some few quarters, beginning to see their error, and not many years will pass ere a change will be introduced." The Commissioners of National Education have always encouraged monitorial teaching; they have seen that a child who is employed, at stated times, in the teaching of a class of his fellow pupils, is rendering most valuable assistance to the master, is improving himself in knowledge, and is obtaining a taste, and undergoing the best possible training for becoming a teacher. They approached the consideration of the question with the greatest care. They never contemplated conducting a large school solely by monitorial assistance; nor did they ever permit their monitors to forget that they are pupils. The first regular monitors in the service of the Board were those in the Model Schools, Dublin, so far back as March 1833. Some were paid, and others acted gratuitously. One of the greatest prizes and highest distinctions in the school was to attain to a monitorship. At one time during school hours the monitors taught some of the classes, and at another time they were themselves instructed; and, before school-hours, there was a special course of instruction always given them. The Commissioners, in their Report for 1837, refer to a new system of remunerating this class of young persons, in the Model Schools they were intending to establish throughout the country, which shows the permanency of the monitorial system at that early period in the history of the Board. They say, "that the money so paid (in school fees) shall constitute a school fund, and that it shall be divided into such proportions as we may determine, between the head master, his assistant, and the most advanced using them in teaching.

there were three drafts in the lowest class, which is the exact number that ought to be in it, and suppose

of the monitors whom he may employ." The system was always worked with moderation; it was free from the wild pretensions of the plans of Bell and Lancaster; and the pupilary and the monitorial functions were happily coalesced. It was the first rational trial, in my mind, which was given to monitorial teaching in these countries. In their Report for 1846, the Commissioners refer to the fruits of the system; they develop its organisation, and they announce their determination to extend it to the Ordinary National Schools throughout the country. Each monitor was to serve for a period of four years; at the end of each year there was a sifting examination as to his proficiency; his teacher was required to employ him moderately as a monitor, and freely as a pupil; and his income increased each year up to the last of his service. Then the system received a further development by the institution of a small staff of pupil-teachers in each of the Model Schools, who, in most cases, were the élite of those monitors who had completed their fourth year of service. It should be remembered, that the functions of the pupil-teacher and the monitor are very different; the former is more of a teacher than a pupil, the latter more of a pupil than a teacher. In 1855 the monitorial system received a still further extension of its usefulness, by the appointment of a number of junior paid monitors, commencing at eleven years of age, and serving for three years; to receive 2*l.* for the first year, 3*l.* the second, and 4*l.* the third. If the conduct and attainments of a junior paid monitor be satisfactory at the end of his period of service, he is then drafted into the ranks of the senior paid monitors, to serve for four years more, and receiving respectively each year, 5*l.* 6*l.* 8*l.* and 10*l.* The paid monitor is now eighteen years of age, and should he persevere in his intention to become a teacher, and exhibit the necessary qualification, he may then be appointed to a pupil teachership in a District Model School, in which he remains for twelve months or two years. In this last stage, his professional education is carried to such a degree, as to qualify him in the most superior way for the offices of teaching; and at the expiration of his stay in the Model School, he is very likely at once nominated to the charge of an Ordinary National School. After serving a year or two as teacher of a school, and becoming acquainted with the difficulties and the responsibilities of the position, he is then brought up to Dublin to receive a final course of training in the Central Institution, Marlborough Street. Elaborate and well-designed as each step in this gradation of monitorial training really is, and superior as have been the results flowing from it, there yet remained a gap in it, the want of a regular scheme of unpaid monitors, which has been filled up by the system of organisation, and which has tended to make our monitorial that these were on the floor to receive 'a reading lesson' of 45 minutes in a school in which there was but one teacher. Two monitors would be necessary, and these could assist in the following order. In draft 1 the master could teach *reading* for, say, fifteen minutes, the time varying by the circumstances

system still more comprehensive and perfect. When a school is being organised, the organiser selects a class which is called "the monitors' class," from amongst the most deserving and intelligent children of the school; he admits as many as possible into the class, in order that the duties may be distributed amongst them and be light upon each; he impresses upon them the importance of their new position and the extent of the distinction which is conferred upon them; and he then arranges that in lieu of the hour a day during which, on the average, they will be called upon to teach, they shall receive an hour's extra special instruction before or after the regular school business. Wherever practicable, it is better that the instruction should be given before school-hours, as the minds of the children are fresh and the teacher himself is vigorous. The subjects which are specially taught during the time for extra instruction, are those which bear most upon the duties of the monitor, the preparation of notes of the lessons, and the art of teaching; and care is taken that this instruction supplementalises and completes the course of business of the day. In order to encourage the teachers to take an interest in the instruction of their monitors, and as a recompense for the additional duty imposed upon them, the Commissioners grant an annual gratuity of 1*l.* for each paid monitor of the first year, 1*l.* 10*s.* for each paid monitor of the second year, 3*l.* for each paid monitor of the third or fourth year, and 4*l.*, as I have already stated, for the careful instruction of an unpaid monitor's class in any school which is organised. Every school that is organised will thus have its staff of unpaid monitors. Some of them, in the course of time, will be placed on the list of junior monitors, be again drafted into the class of senior monitors, and be finally appointed as pupil-teachers in a District Model School. During each stage they are pupils one hour, monitors the next; blending the didactic with the studious; rising in powers of thought and expression with their daily experience in teaching, and feeling the counterpoising and disciplinal influences of submission and authority. A monitorial system, such as I have described, can hardly fail; the country may, I think, well be proud of it; and the more that it is developed through the organisation movement, the less likelihood is there of hearing complaint or cavil at its arrangements, or suspicion or hesitation as to the soundness and judiciousness of the principles upon which it is established.'

of the class—during this time one monitor would be teaching draft 2 to spell on and off the book, and the other would be teaching draft 3 to count or add mentally. The master could then move from draft 1 to draft 2, and teach the children in it to read, the monitor of draft 2 going to draft 1 and giving out the spelling, while the boy in draft 3 could change from mental addition to the teaching of the alphabet &c. The master might then pass to draft 3 and teach it, while the monitor of that draft might teach tables &c. to the class thus left vacant. The three drafts should be so near each other that, without actually interfering with each other, the master could make himself certain that the lads were working correctly. Occasionally he could take up spelling, tables, &c., and see that these subjects were going on well.

Stipendiary monitors, pupil teachers, &c., may of course be employed in higher duties.

Extra hours' teaching requisite.

Monitors must be taught after hours, both as a compensation for the time they gave in teaching, and as a preparation for that teaching. They must also continue to discharge the same duties in the same class for a week at least. Change of teachers is bad for any class, and a continuance in office until some result could be shown is a good means of stimulating the monitor to faithfulness in performance of his duty.

9. DISCIPLINE, ORDER, ETC.

(9.) *Discipline, order, &c.*

Value of order.

When anything is to be done, it is best to do it in an orderly manner. There are also many things in which attention to order not only is the best course to be adopted, but in which success would be impossible without it. Among these may be reckoned the teaching of a primary school. Children are naturally restless, noisy, and prone to irregularity, so that when many of them are together it would be impossible to direct their efforts to any good end, unless under a proper controlling and governing power; but by strict attention to the rules of order and discipline we can make even their natural restlessness contribute to their advancement.

Order may be carried too far.

Order may, however, be carried too far, and in that case it is an evil. Too many arrangements to secure precision, attention, silence &c. clog the wheels of the machine and destroy its usefulness. The advantage of order and discipline is in *facilitating* the performance of the day's duties, and, therefore, there is an error in every system in which time is spent on the mere maintenance of order, that could be given effectively to the real business of the school.

Over drill.

Over drill is very often practised, and, though drill is very good, it becomes when in excess a nuisance. The following style I have sometimes met with. I consider it exceedingly objectionable, from the unnecessary loss of time involved. A class engaged at arithmetic in desks is about to be taught a reading lesson on the floor. The master gives the following orders:

Attention. Boys look at the master.

Pencils down. They place the pencils at the top of the desk.

Prepare slates. They grasp the slates by two corners.

Show slates. They turn them round, and slope them a little towards the breast.

In. They place them in the grooves made in the desks for their reception.

Hands up. Both hands extended upwards, to show, I suppose, that the slates and pencils are laid down.

Down. Hands placed on the knees.

To the (right) face. Turn to the side mentioned, half round.

Hands up. Both hands raised again.

Horizontally. Hands extended slightly above and parallel to the desk.

Down. Placed, one on the desk the boys sit in, and the other on the back of the next. This is generally done with a smart noise.

Out. Pupils, supporting themselves on their hands, spring out of the forms and stand upright between the desks.

Fold arms. They cross their arms on their breasts.

Slow march. They move after one another to the place indicated, keeping step, and making a distinct noise with their feet.

These orders may seem exaggerated[1], but I have met with them in most large schools, chiefly model schools, and in some smaller country schools whose masters imitate 'not wisely but too well.' But, bad as these are, the case is often even worse, for some teachers who are extreme lovers of regularity and precision give them over and over again until they get perfect uniformity of action among the whole class. Thus, if the slates at the order '*show*,' or '*in*,' are not placed where desired so simultaneously as to produce but one effect, those fastidious persons will go over the performance for many minutes, often wasting as long in this as would serve to teach many a good lesson. Children so drilled must be disgusted with order. It must be a sad bore to them. They who adopt this system mistake order for the *end* of education; and it will be found that not only is every movement and motion made by rule, but every answer is generally by guess.

Defects of this.

In the example just given, what the master wanted was (1) that the slates and pencils should be quietly and quickly put into their proper places, and (2) that the children should form round himself on the floor rapidly, but without confusion. Will any one say that these objects were best effected by the method he adopted? In my opinion he not only took the longest plan of arriving at the desired result, but he impeded the business of the entire school, for no business could possibly go on in any class so long as another class was obeying such multifarious and noisy commands.

---

[1] The following is taken from Mr. Joyce's recent work on School Management:—'If the pupils in the desks have slates, they all drop them *together* into the apertures, at the word "Slates in;" all those in desks will stand up together at the orders, "Right Face," "Hands on Desks," "Out." When all is ready, the pupils of the different drafts and divisions begin at once to move towards their respective places at the word "March."'

What ought to have been done.

The class should have been so trained to *habits* of order and obedience that, at the simple telling of them what they were to do, they would do it, when left to themselves, exactly as it ought to be done. Giving boys instructions regarding every step necessary to attain the desired end is simply to drill them, and to do so at such time is a violation of the great rule—a time and place for everything, and everything in its proper time and place. Boys thus in leading strings can no more be said to possess habits of order than the recruit as yet in the hands of the drill-sergeant can be said to be a disciplined soldier.

Suppose the master had said to the class 'you are to form here for a reading lesson,' the boys should, of *themselves*, have placed the pencils and slates in their proper places, got out, and moved (not marched, for I do not approve of that solid tramping of the feet what is called marching) one after the other to the draft circle without noise or confusion. When so left to themselves a boy may indeed be, now and then, a little behind the others, but the fault is of much less consequence than the extreme waste of time which absolute precision requires. It is an error, too, whose punishment, if it is thought necessary to punish for it, should fall upon the boy himself and not on the whole class, and one which ought to be corrected by remarks directed personally

bjections
onsidered.

to him. It will be said that it is by such orders that boys are taught. I answer that it is not to teach them that this system is in general practised, being used even when boys are already fully drilled; and (2) that is not the best way to teach them. The best way to teach a child how to do anything is to give him, at first, general hints for his guidance, then leave him to do what he can, and point out to him whatever defects were noticed in his method. Depend upon it such a system of multiplied directions is wholly unnecessary, and I am particular in condemning it because it is very generally practised, and very far from being agreeable to the parents of the children. I have known several schools that became highly unpopular from this cause alone.

This is an instance of the evils of excess; but though the excess of order, like the excess of everything, is in reality a fault, it is not so frequently met with as is the entire absence of order, or of attention to its chief rules. The point to which teachers ought to attain is what lies between too great formality on the one hand, and too great freedom of action on the other.

rinciples
f order
n one
entence.

The whole principles of order may be embodied in the one sentence—'a *proper* time and place for everything (and every person), and everything in its own time and place.' There must be a proper time for everything included in the school business, and everything must be done in the time thus set apart, and in none other. There must also be a proper place for everything, and everything must be kept in that place. There is no better test of a master's skill, ingenuity, talent, and general fitness, than his adherence to this comprehensive rule.

efects, as
xemplified
n copy-
ooks.
lates.

Every article in the school must be easy of access, yet not loosely thrown aside. In some schools the copybooks are thrown into the press; the slates left here and there; the books lie scattered, like litter, over the benches and in the windows; the tablets are hung in numbers upon one or two pins, so that all have frequently to be disturbed before the one sought is procured; the black board is left to lie in some neglected corner of the room, or, as I have sometimes seen, made to screen the sweepings of the floor, or the fuel, from the gaze of strangers; and the maps are suspended behind desks, so that a class could not be formed before them. All these are gross violations of the principles of order, and impede the progress of the school more than it is easy to calculate. The *copybooks* should be kept as I have previously explained; there should be a double supply of *slates* for the desks and floor—the one should be kept always in the desks, and the other in some convenient corner of the press or of the room; each *tablet* should have a pin for itself, and this pin should not be driven into the wall, but into rails put up for the purpose; the *black boards* should be suspended from hooks in each draft space, one, however, being left on the easel; a piece of sponge, or other suitable rubber, to remove the chalk, should be attached by a string to each; the *pens* and *pencils* should be kept in separate boxes, and the *ink bottles*, as before stated, should be attached to the desks; the *books* of the school should be arranged in the press as books are on the shelves of a library, so that they may be got without trouble; and when the children bring books daily to school, they should be kept with them, so as to look as little confused as possible, and to be easily available when wanted. But, as a general rule, I do not think the pupils should bring any books to school with them. They are not permitted to use the *reading books* except when up in class, and there should always be a stock on hand for this purpose; and when saying the home lessons, one book in the hands of the master is sufficient.

Papers.

Tablets.

Black board.

Maps.

How the copybooks ought to be kept.

Slates.

Tablets.

Black board.

Pens and pencils.

Books.

Pupils should not bring books to school.

Arithmetics &c. should always be supplied from the school stock; they should be given out daily, and collected back when not in use. When children bring their own books they must either carry them about wherever they go, which is in most cases unsightly, inconvenient, or impossible, or they must place them on one side. If they place them on the desks, they create confusion and disorder; if in receptacles set apart for the purpose, time is wasted in going for them—when called to class they cannot come, they must go for their books. Straps and bags are encumbrances, and, in country schools, very rarely seen.

Evils of.

Another source of disorder is in the manner in which children throw their caps about. No place is set apart in many schools for them, and, in consequence, they, and the cloaks and bonnets of the girls, are thrown in a heap in one corner of the room, scattered over the desks, hung on the tablet pins, or else lying in the windows. In such cases the appearance of the room is always unsightly, and when allowing the children out for play or any other purpose the utmost noise, confusion, and waste of time invariably are met with. A cheap cap rack is very inexpensive, and there are few teachers who could not make one for themselves. A very convenient one consists of six or seven rails, about three inches broad, and of adequate length. In these there should be placed suitable pins to hold the articles. Nails are not good, but will answer if nothing better can be readily procured. These rails should be attached to the wall near the door, so that the children going in or out can reach them without trouble.

Caps.

Cap rack.

The tablets and maps should be suspended where they can be got at without going through the desks, and, if possible, where a class could form round them, in order to prevent the waste of time that

Tablets and maps, how to suspend.

otherwise takes place in unhooking and removing them. In fact, it may be laid down as a general rule, so far as maps are concerned, that there should be as many places of suspension as there are *draft* spaces. If there are many maps, they can be suspended over each other.

The maps in ordinary use have to be rolled up by hand. This is not always easily done, as they are sometimes placed high up, and very frequently it is the cause of great confusion and waste of time, and of injury to the maps themselves, from the tendency to leave them exposed to the sweepings of the room. To remedy this, detach the round roller from the bottom and place it at the top of the map, and the board at the top place at the foot. This allows of the suspension of the map in a little frame, and, if provided with mountings, as in window blinds, it can be easily rolled and unrolled by merely pulling a string. If the frame be made large enough two or more maps can be mounted in it, and this will economise the wall space considerably.

Best way to suspend maps.

Owing to the dampness of the walls of some houses, maps, tablets &c. cannot be suspended from them without immediate damage. In this case, long pins should be used, so as to prevent the maps from touching the walls in any place; but the best plan is to mount them in a moveable stand, something like a clothes' horse—on the roller system—placing two or three, or more, to each stand. This will almost effectually preserve them, even in the dampest houses. The black board can be inserted into the lower part of this frame, if found necessary.

When walls are damp.

Pointers are indispensable for map teaching. These should be made neatly, and suspended close to the maps themselves, so as to be always at hand. Teachers must get over the idea that anything—a rule, a pen, a pencil, a walking-stick—will do for a pointer. Nothing should be used but what has been

Pointers.

specially made for the purpose. It will in general look best; and from being used for but one thing, it will be less likely to be always a looking for.

In fact, unless *every article* necessary for the progress of the children is in its own place, time will be wasted, and the rules of good order violated.

Pupils go out, or to the fire, when they like.

Evils of.

In some schools, pupils go out, or to the fire, or to any other place in the room, when they please. This is exceedingly objectionable. It not only creates irregularities of various sorts, noise, and confusion, but in the case of going out it sometimes leads to very indecent actions. Pupils should never be allowed to leave their proper duties except by the consent of the master, or of some responsible person appointed by him. And no more than one, or, at the most, two, should be permitted to go out at a time. When more go out, the companionship protracts their stay; and this is not only an injury to themselves, but an injustice to the others, and when they are seen by persons passing the school-grounds, it is a certain means of gaining a bad character for the establishment.

Pupils who rush to the fire at pleasure can settle down steadily to nothing. They are always either at the fire, or anxiously waiting an opportunity to go to it. A crowd in such a school always gathers round the fire, and idleness, talking, scrambling, and pushing are the consequences; and, in the struggle, the small children—the ones to whom the fire is the most necessary—are shut out. No child should, as a general rule, be permitted to go to the fire, for the room should be heated to the temperature that would make it unnecessary. In cases, however, where an exception to this rule is called for, the draft to be taught may be assembled in front of the fire, for they will thus be warmed without interfering with their duties.

alling out

In other schools, when boys wish for anything, they either call out, or else come up to the master, interrupting him, no matter at what business he may be engaged. This is not only disorderly, but *unmannerly*, and should be commented upon from both points of view. A breach of good manners should never be allowed to pass unnoticed, were it only for the purpose of preserving good order in the school. A classical teacher of my acquaintance maintains silence by simply convincing his children that noise is a breach of good manners. He represents to his children that they are in his house, under his roof, and that, if noisy and inattentive to what he says, they will be guilty of conduct that he himself would not possibly be guilty of under theirs. He asks them how they would regard him if, when at their fathers' houses, he talked so loudly as to disturb every person near him, and so unceasingly as to attend to nothing that others said? They know that such conduct is wrong in the extreme, and they soon learn the lesson he seeks to teach them.

for what is wanted &c.

To remedy.

When boys have any request to make they should hold up a hand, and the master or monitor should attend to them as quickly as possible. It is a bad thing to try the patience of children too far. If it is absolutely necessary for them to speak to the master, they should be taught to wait quietly until he is disengaged.

Monitors of order.

In other schools, when pens, pencils &c. are required, or when books &c. are to be collected, the children do not know upon whom falls the duty. There should always be a person distinctly appointed for such offices. The *last* boy in the class is the best to depute; better, I think, than the *first* boy, as choosing him will impede the business of the class less. The pupils, suppose, stand in class. The last boy gets the books, and gives one to each, beginning with the first, and retaining one for himself as he falls into his place. When about to collect them, he stations himself at the top of the class, and as the boys pass him in going to their seats, he receives the books which they deposit in his hands. Little details of this kind afford, as Mr. Keenan says, 'invaluable opportunities to an intelligent teacher for the cultivation of habits of taste, and business, and accuracy in his pupils.'

Trifles most important.

It may appear to some that these details are too minute and trifling, but what are often called trifles are in reality of great importance. 'It is only an inspector that can accurately understand the inconvenience which results from inattention to apparent trifles. These arrangements often make all the difference between an ill-conducted and a well-conducted school; and I have known a master's labours entirely thrown away, and himself worn out and dispirited, from a mere neglect and indifference to such slight matters.' So writes Mr. Mitchell, in his Report for 1848;[1] while Mr. Kennedy, in his Report for 1859,[2] bears testimony to the value of 'trifles' in the following words: 'If I were to name any one point of excellence more than another to which I think the success of the Lancaster and Rochdale schools is owing,' and in which their merit lies, I should say that it was *an attention to minutiæ.*'

Mr. Mitchell.

Mr. Kennedy.

Discipline defined.

With regard to *discipline*, it may be said 'to secure from the pupils subordination to the authority of the teachers, submission to the rules and regulations of the school, respect for superiors, the cultivation of decorum, and devotion to study; and the best system of discipline is that which secures most of these advantages with the least amount of restraint, harshness, or chastisement.'[3] Discipline also secures good conduct, gentleness of disposition, and kindness of manner and behaviour. It is chiefly instrumental, in fact, in forming the *character* of the child.

---

[1] Min. of Council, 1848-9, vol. i. p. 318.

[2] Min. of Council, 1859-60, p. 98.

See also, for Mr. Fletcher's valuable remarks on order, &c., Min. of Council, 1846-7, vol. i. 258 and 259.

[3] Report of National Education, Ireland, vol. for 1855; Mr. Keenan's General Report.

He who would seek to form this correctly has to contend with anger and violence, with a proneness to wrangling, and with the many difficulties attending on the inculcation of truth, frankness, honesty, candour, and obedience.

Anger and passion—how to deal with.

Anger and passion are naturally found most where the governing powers of the mind are weakest, and hence they are, almost universally, met with in children. But children are angry from imitation, as well as from mental defect. They witness angry outbursts of passion in their parents, in the servants, their friends, and acquaintances; and as they are ever open to impressions for good or ill, similar faults are rapidly developed in themselves, and become apparent in rough contentions with brothers and sisters, or with school companions. It is incumbent, therefore, upon all persons in charge of children—but especially upon those in whose hands is the chief formation of their character, and to whom they look instinctively for guidance—to refrain from angry expressions, and even from angry looks. The voice should never sound the notes of passion, and the spirits should always be even and tranquil.

When children are detected in bursts of anger among themselves, in quarrelling, in speaking harshly and cuttingly to each other, the master must reprove them; but reprove them with mildness and temper, for otherwise he may do harm under the hope of doing good. If he command them to cease, speak to them dogmatically and dictatorially—he may gain obedience for the time, but he will merely cover over the angry fires. They will smoulder, and be ready to burst out again with violence when opportunity offers. He must extinguish the evil, and not merely repress it; and this he can do by appealing to the higher portions of their nature, to the kindliness of disposition which lurks more or less in the breast of every one, to their sense of right, to their reverence for Him who said, 'The children of God must not strive.' They must learn the great lesson that, as quarrelling is sinful in itself—quite irrespective of what they may be contending about—they are not to indulge in it, whether their side of the dispute is right or wrong. 'The boy,' says Mrs. Fry, 'who is accustomed to maintain angrily the superiority of his top, will when a man angrily maintain the superiority of his creed; the girl who is allowed to quarrel for precedence in the use of a toy or book, will when a woman disturb the peace of her family by jealous contention and pertinacity.'

Quarrelling among children often proceeds from their unwillingness to make those little concessions which grown people find incumbent on them in social intercourse. The important lesson of *mutually yielding a little*, if once learned, would prevent many a contention. It cannot therefore be commenced too soon. When teachers find that two opposite opinions are angrily maintained in their entirety, they should endeavour to bring about those small concessions which will make them coalesce, and so produce peace and harmony.

Every outburst of passion may be made a means for the improvement of all. It therefore should not only be privately but publicly checked—not necessarily punished, but stopped—and occasion should always be taken to obtain an expression of regret from those who are in error, and while condemning the fault, the manliness of confessing it ought to be praised. Children must, however, not only *avoid* the fault of quarrelling, but they must act with openness of heart and with good nature towards each other. To refrain from error is but a negative virtue after all.

Truth.

Children must also be carefully brought up to habits of truthfulness, until they would as soon think of committing a theft as of telling a lie. To speak what is quite untrue, knowing it to be so, is not only a wicked and a mean act, such as no man with love for God or for himself would be guilty of, but it is a silly act.

To speak untruly is *mean*,

It is *mean*, because it proceeds from a cringing spirit. The liar's mind is always sordid and low, and the liar himself, though he may be successful through his cunning, can never be great or noble. It is *wicked*, because an evil in itself, as well as a perversion of the great gift of speech with which God endowed us, and intended as a blessing. It is sinful, because strictly forbidden by Him who is the Father of Truth. But it is a *folly*, inasmuch as it generally defeats its own purpose. Very few believe a wilful lie, and the habit of lying is very easily detected. He who gains the reputation of telling lies cannot hope to be believed even when speaking truly. None but a fool would willingly lie. There are so many circumstances connected with even the simplest narrative, that any misstatement is easily detected.

Is *wicked*,

Is *foolish*.

Equivocation and exaggeration.

Again, though a child may not speak what is absolutely incorrect, he may *equivocate*—he may use a set of words whose meaning may conceivably be true, but which in their ordinary acceptation express what is false. This is a want of sincerity, of that openness of character and disingenuousness that ought always to characterise childhood, and must be as strictly checked as even direct falsehood. Those who commit this fault are very prone also to the fault of *exaggeration*. If relating any circumstance they will not confine themselves to the incidents as they occurred, though these may be sufficiently wonderful in themselves; they will add, or diminish, in order to increase the effect. If six men were fighting, it is related that there were ten or twelve; if a dozen of birds were killed, the number when told is a dozen or two, &c. This fault, as

Dr. Johnson says, is more the result of 'carelessness about truth than intentional lying,' but it is nevertheless a fault almost as strongly deserving of censure and correction.

Breach of promise.

Closely allied to a breach of truth is a *breach of promise*. The pupils should look upon a promise as sacred, and the master should set them an example. A promise once given should be considered binding, and, therefore, he who makes it should weigh well all the circumstances beforehand. This teaches prudence, circumspection, and forethought.

Attention and perseverance.

Discipline may also be made the means of forming habits of *attention* and *perseverance*, two virtues which probably, more than any others, are to the student the conditions and causes of his success. These virtues are not natural to children; they require special cultivation. Children, generally, attend to what is new; but when the novelty disappears, they become careless and indifferent, listless and apathetic. They are too energetic at first, and too sluggish in the end. The master ought to restrain this excess of zeal at the commencement, to treasure up the energy they would squander themselves if permitted, and to sustain it when about to flag. He must create in his children purity of motives. He must accustom them to do a thing simply because it is *right* to do it, and not because it is pleasant or novel; and he must not be too ready in rendering them assistance to overcome whatever little difficulties present themselves. Every effort must be made by the student himself, of course encouraged and directed by the master, before he can legitimately claim help, and before giving it the student should be called upon to explain what he has done himself to attain success. If the efforts prove to have been desultory and weak, he should be encouraged to try again; if they have been continuous and intellectual, but unsuccessful, their defects should be pointed out, and he should then be left to reach the goal himself by the light thus thrown before him. A child ought not to be allowed to leave a thing unfinished. Whatever he begins to do he should be caused to complete, no matter how much he may come to dislike it. He will thus learn habits of perseverance, and the value of prudence and forethought when about to undertake any business.

Obedience. *Obedience* is a most important virtue, and in children it is most essential, for without obedience from them we are powerless. Obedience however, to be thoroughly valuable, must be cheerful and willing. It very often is tardy, hesitating, languid, dilatory, and often is the result either of threats or of punishment. It may, on the other hand, be brought about by entreaty, by argument, by persuasion, or from a strong liking for the duty assigned. But obedience so produced is not the kind with which the teacher ought to rest satisfied, or by which he will succeed in governing his school. **Kind of.** The obedience of a child must be prompt, active, and unhesitating; it must command his whole attention, and be the result neither of threats nor punishment, argument nor feeling, but it must spring solely from a sense of duty in *submitting to authority.* When told to do anything it ought not to enter into his head to sift the why and the wherefore. He must feel that he cannot but obey. Children are not sufficiently rational, nor are their motives sufficiently pure to make an appeal to their judgment judicious.

Abbot. Abbot says: 'It is impossible to govern a child by mere argument; many cases must occur in which it will be incapable of seeing the reasonableness and propriety of the command, and often its wishes will be so strongly opposed to duty, that all efforts to convince it will be in vain.' The first thing, then, to be aimed at, is to bring the child under perfect subjection; teach him that he must obey; accustom him to immediate and cheerful acquiescence in the will of his teacher. This is obedience, and this is absolutely necessary to good government. Children very often resist, but when they find that resistance is useless, they soon sink down into submission; and when the habit of obedience is once formed, it smooths the way to the attainment of the most perfect discipline, unaccompanied with trouble or crossness, and to the acquisition of every legitimate success.

How to govern.

But the question arises, 'By what means are pupils to be taught submission to authority?' I give the answer in the words of another, 'By kindness, patience, undeviating firmness of purpose, and a strict regard to principle in all our dealings with them.'

Never treat a child harshly, for *love* is a great incentive to obedience. Never manifest impatience at its little efforts, or any want of forbearance, for *gratitude* is a great incentive to obedience. Never show a want of principle—*faith* in the person who issues the command generally secures promptness in complying with the orders; and finally, never give a command which you do not intend to be obeyed to the letter, for there is no more certain way of habituating a child to disregard of instructions and neglect than this. No matter how trifling the command may be, see that it is fully and implicitly obeyed, and see also that the obedience, when it ought to be so, is continuous. In many cases I have seen masters call for silence every minute or so. The pupils obeyed him for the instant, but relapsed back immediately into noise and confusion.

Again, when disobedience leads, as it often does, to mischief, to the destruction of property, infliction of pain &c., do not punish so much for the effect as for the cause. Appear always as if you were noticing their efforts to do right, for a consciousness of having our good actions known is a most certain stimulant for prolonging them.

Punishment.

Children exhibit every diversity of temper and disposition. A kind look or a pleasant word will be sufficient for one; another may require gentle admonition; in another case severe rebuke must be resorted to; in a few cases—and I am happy to say that it is only in a few—punishment must be inflicted with more or less severity. In the selection of the punishment, and in its mode of administration, the teacher must exhibit peculiar judgment, but, above even it, he must exhibit temper and humanity.

Corporal punishment only when all other means have failed.

Not hastily.

Never about the head.

Corporal punishment cannot be wholly dispensed with, but it must not be inflicted until all other methods have failed. Teachers are by no means careful enough in obeying this rule. It is very common to see them striking the boys on the head or across the fingers with a cane or pointer, or boxing the ears with a violence calculated to produce disease or death, and this, perhaps, from some very trifling cause. Such conduct is brutal. Corporal punishment ought not to be inflicted hastily, or with an improper instrument, or on a wrong part of the body—*never about the head*; but it is wonderful how very little of corporal punishment is required for the maintenance of order and discipline. In the very best schools with which I am acquainted it is almost unknown. 'Discipline,' as Mr. Keenan says,[1] 'does not necessarily imply *correction*—it is only when discipline *fails* that correction becomes necessary. The infliction of punishment, if it show anything in relation to the system of discipline in a school, it is that the system is bad or ineffective. In nine cases out of every ten punishment is resorted

Mr. Keenan.

Punishment is often a *substitute* for discipline.

---

[1] Report of National Education, Ireland, vol. for 1855; Mr. Keenan's General Report.

to as a *substitute* for discipline, rather than as a means of sustaining it.'

If the government of a school is unvarying and correct, severity will very seldom be required; and if, when required, the punishment is inflicted more in sorrow than in anger, and with the necessary solemnity, the necessity for it will soon disappear.

Must be by the *principal* teacher.

The chastisement of a child must in all cases be inflicted by the *principal* teacher. When a pupil misbehaves, the duty of an assistant teacher is simply to represent the misconduct to the principal teacher, on no account taking on himself the function of measuring or inflicting the punishment, or in any manner abusing or illtreating the offending child.

Children must not be punished when the wrong was not intentional, otherwise they would soon see no difference between voluntary and involuntary acts. Their sense of justice would be blunted, and their faith in correctness of principle would be destroyed.

Rewards.

As children must be reprimanded and otherwise punished for faults, so ought they also to be rewarded for good actions, not as a motive for the performance of them, but as a means of marking how highly good actions are valued. Remember, however, that a frequent recourse either to rewards or punishments deadens their effects. A child who is frequently subjected to punishment will, in the end, become hardened and callous; and he who is always receiving rewards will be always expecting them. He will grow so accustomed to these stimulants that he will soon be unable or unwilling to act without them. Praise and blame are species of rewards and punishments, and, therefore, they also must be administered sparingly. A child may be called good or bad, pleasing or disagreeable,

A frequent recourse to rewards and punishments is bad.

until he will listen to either character with indifference.

Value of discipline.

By the steady and temperate enforcement of discipline, some of the greatest of the benefits of education are produced. The habits of regularity and discipline which pupils acquire in a well-governed school, are even more valuable than their literary advancement. Reading may lead to mischief, knowledge may be abused, skill may be misdirected, but the fruits of early obedience, regularity, and discipline are everlasting and ever beneficial.

Constant employment a good means of discipline.

Much of the failings of discipline and order in a school would be removed were the children kept constantly employed: it is the best way to prevent talking, confusion, restlessness, mischief, and bad habits. They should, therefore, never be allowed to idle, yet never be allowed to grow weary by confining them too long to one subject. This is difficult. Proper organisation is the basis of success, but it is the master's *eye* which must control the school. It must be everywhere: the pupils must feel its influence continually, and be convinced that they cannot possibly idle or talk without discovery. It is in this that the whole secret lies. The Rev. J. J. Blandford says upon this point: 'The teacher should be able not only to keep up the attention of the particular class to which he is giving instruction, but should at the same time possess an accurate perception of everything that is going on around him. If he would have the hearty coöperation of his children, pupil-teachers or monitors, he must impress them strongly with the idea that he can do this, and that because he possesses the power he can, at any time, appreciate the exertions they are making. To do this effectually requires a keen eye and a master mind; to accomplish it in its fullest extent is what few attain to, and many are prevented from

Master's eye must control the school.

Mr. Blandford.

attempting it owing to the defective organisation of their schools.'

10. NEATNESS AND CLEANLINESS.

(10.) *Neatness and cleanliness.* These are very intimately connected with good order and discipline. Whatever value they may possess in other cases, they are beyond price when shedding their influence over a school. Children living for many hours of the day under the immediate influence of neatness and cleanliness, become gradually and unconsciously affected by them. Their good qualities become a part of their very nature, and are as certain in their action afterwards as the mental culture they receive:

Dr. Newell. Dr. Newell says: 'I believe that cleanliness, like righteousness, exalteth a nation. Spelling, reading, writing, must be taught to each succeeding generation, and to every individual of it, but the inculcation of habits of cleanliness and decency carries with it an *hereditary* morality, if I may so speak, that descends from parent to child, and whose influence is felt by succeeding generations.' Children who have acquired in school orderly and cleanly habits will, when they become parents, be almost certain to impart these virtues to their children by precept and example, and these in their turn will do the same to the next generation.

They are hereditary.

A filthy, disorderly, irregular, school will form habits just as lasting as the habits of neatness and tidiness. It is difficult, therefore, to say how much harm is in reality done by the influence of such a school, or how much good by one whose aspect, general appearance and arrangements are what they ought to be.

We may consider this subject under three heads: (1) as to the cleanliness and neatness of the teacher's own person and dress; (2) as to the children; and (3) as to the school room and school grounds.

(1.) *Of master.* (1.) As the master is placed so very much above his children, he is naturally accepted by them as a proper model for imitation. They imitate his looks and gesture, his dress and manners, and are negligent or attentive just as he is himself. If he come to school unclean or untidy, the chances are that they will act in the same way. Besides, a dirty, slovenly man cannot enforce cleanliness and neatness; he cannot preach these virtues no more than a drunkard can enforce or preach temperance, except, indeed, that he inculcates them by holding himself up as an example of the injurious effect of their neglect; and this it is not likely that he will do.

He is the model for his children.

In my experience of teachers, I have had frequent occasion to call their attention to their personal appearance. I have met men with shoes unbrushed for days and weeks—with trousers upon which the traces of many a muddy walk still remained visible; with coats out at elbows, and waistcoats unbuttoned and slovenly; in fact, with dirty dress untidily put on: their faces unshaved—I shall not say unwashed—with hair either uncombed or carelessly arranged, and in all other ways so little different from the peasants whom they taught, that it required some difficulty to say who was the *educator* and who the *educated*. For these men I will quote what Addison has written upon cleanliness. He says: 'It is a mark of *politeness*, for it is universally agreed upon, that no one unadorned with this virtue can go into company without giving manifest offence. The different nations of the world are as much distinguished by their cleanliness as by their arts and sciences. The more they are advanced in civilisation, the more they consult this part of politeness; secondly, cleanliness may be said to be the foster-mother of affection. Beauty commonly produces love, but cleanliness preserves it. Age itself is not unamiable while it is preserved clean and unsullied. I might further observe, that as cleanliness renders us agreeable to others, it makes us easy to ourselves;

Examples of carelessness on master's part.

Addison.

that it is an excellent preservative of health, and that several vices, destructive both to body and mind, are inconsistent with the habit of it. In the third place, it bears a great analogy with purity of mind, and naturally inspires refined sentiments and passions. We find from experience that through the prevalence of custom the most vicious actions lose their horror by being made familiar to us. On the contrary, those who live in the neighbourhood of good examples fly from the first appearance of what is shocking, and thus pure and unsullied thoughts are naturally suggested to the mind by those objects that perpetually encompass us, when they are beautiful and elegant in their kind.'

He who, therefore, is unclean is deficient in politeness, cannot enter society without offence, is uncivilised, loses the affection of his friends and his own self-respect, injures his health, and, insensibly, contracts vices injurious to both body and mind. A teacher, therefore, habitually so, is in my opinion unfitted for his office, even if he had all the learning of Newton and all the 'didaktik' art of Pestalozzi.

How a teacher ought to come to school.

A master—and were it not for the existence of instances like those just quoted, it would be preposterous to state so—must come to school with face washed, beard shaved, and hair neatly and carefully arranged and cut; his clothes clean, unbroken, and tastefully put on; his shoes properly polished—I do not mean that they ought to be free from mud, for that would be impossible in many country schools, but that they should certainly exhibit evidence of having been carefully cleaned before being put on; his hands scrupulously clean, without the trace of dirt beneath the nails. Every gentleman, and every person with the feelings of one, looks with horror upon dirty hands and nails. They are the most certain sign of uncleanly habits.

The income of the teacher prevents his dressing expensively, but certainly it does not prevent his dressing neatly and tastefully. The clothes may not be good, but they can be well brushed and mended. Many teachers have an idea that anything will do for the school, even what they would be ashamed to wear in other places; but this is very incorrect. The school dress must be clean and neat, and such as will not lower him in his own opinion or in the opinion of his visitors or children.

His dress.

One of the maxims of dressing is, that the apparel must possess a certain degree of suitability; that is, it must be adapted to the circumstances of the wearer—to his profession and his income. A man who holds a humble position is not expected to dress richly; and no man who holds an important office, and respects himself, ought to dress lightly or rakishly. The teacher is generally compared with the clergyman, and his dress should be in keeping with this estimate of his character. It should not be gaudy, flimsy, extravagant, or vain; his head-dress should be plain, not ultra-fashionable, and worn without affectation or foppery.

Dress a key to character.

Dress is a key to character; and no one respects those who dress unsuitably. What would be tolerated in a fool, a coxcomb, or a clown, would be sadly out of place on a respectable man. A clergyman dressed in tweeds, a teacher in showy garments, are equally out of place; and the public is certain to judge unfavourably of the character of those who thus err.

I write this in reference to some young men whom I have lately seen dressed as if they had thousands per annum, and as showily as if they had neither taste themselves nor dreamt of it in others.

(2.) Considered in reference to the children.

(2.) In reference to the children themselves, cleanliness and neatness are of the greatest importance. These virtues in the master are valuable, chiefly from his serving, as I have said, as a model; but it is the

Difficult to make children attend to neatness and cleanliness.

children themselves whom we wish to influence. It is exceedingly difficult to make them attend properly to personal cleanliness. They are too young to value or feel its influence upon the health, and too thoughtless to understand or care for the favourable impression it makes upon those with whom they associate.

But possible.

The history of many schools throughout the country abundantly proves that it is possible, however, to create in children a proper regard for neatness and cleanliness, and that they can be made to exhibit these in their own persons, even when dwelling, as many of them do, in smoky, unhealthy-looking cabins, and working at the rough work at which the children of peasants are so frequently engaged. All that is necessary is a proper appreciation exhibited by the master himself of the beauty and value of cleanliness, and a determination to have it carried out in his school as far as practicable. When children are not clean and neat in school, the teacher is chiefly to blame. He will be found either not to value these virtues or not to enforce them. I have often thought, when I have met with school-boys with dirty hands and faces, with hair uncut and uncombed, and with unbrushed clothes, how extremely little their teacher regarded their welfare. It is only from supposing an indifference to the true interests of his pupils that we can at all account for this neglect, for every man is fully aware of the importance of neatness and personal cleanliness; and it has always been a question with me whether one so indifferent is not wholly unfitted for his office.

Requires a constant *watchfulness.*

Cleanliness will not be produced by a mere enunciation of its advantages—for children, as I said before, cannot appreciate the force of such an argument—nor will it be produced by general directions to come clean to school. There must be, *in addition to these,* a constant watchfulness to detect and remove every individual instance of neglect. Five minutes are supposed in most cases to be set specially apart for this purpose, before the business of the day begins; but in country schools, and indeed in the majority of town schools, this arrangement is nugatory, for the simple reason that, owing to the extreme irregularity of attendance, at least one half of the pupils are thus passed over, and that half the very portion which most requires supervision, from being generally detained at some manual labour.

Time set apart in morning not sufficient.

It is correct to have these minutes thus set apart, but at whatever time the pupils come before the teacher, in the class, in the desks, in the gallery—and all ought to come before him daily—his eye should be always searching for breaches of cleanliness and neatness, and, when detected, he should at once endeavour to remove them, and take such steps as would prevent a recurrence of the faults. Children, in fact, will be clean only from habit; and the habit of cleanliness can only be formed by repeated admonitions, *and by never permitting* an instance of its neglect to pass unnoticed and unreproved.

Dean Dawes's remarks.

Dean Dawes, in his 'Hints,' says that, to create the habit of cleanliness in children, 'the teacher should take every occasion to remind them always to be neat and clean in their persons and dress, and how much this adds to their respectability; that no one looks upon a child of dirty habits with the same respect as one that is clean. Showing them something like neglect when they are dirty has a good effect.'

(3.) In school-room.

(3.) Cleanliness in the school-house is almost as essential as cleanliness in the person of the teacher and his children; but happily it is easier procured. All that is required is a little exertion and some taste. No lumber should be permitted to lie in the apartment; no broken and useless slates, no torn and soiled papers, no scraps of anything should be allowed to remain one moment longer than they could conveniently be removed. Everything, in fact, ought to be removed out of the school except what is absolutely necessary for the business of each day.

Sweeping and dusting. The room should be swept each evening, and dusted each morning. To dust a room just after sweeping it is useless. Time must be allowed for the settling down of the dust. Before sweeping the floor, if very dry, it ought to be sprinkled with water, the maps rolled up, and all tablets likely to be injured either turned, taken down, covered, or otherwise protected. All books, copybooks, &c., should also be previously put into their proper places. In dusting the school next morning, never omit to remove the dust from the tablets, maps, charts, &c., and from the desks, forms, windows, and the other woodwork of the school. Proper cloths should be kept for this purpose. Be careful also to remove all cobwebs, to clean the windows, and, when occasion requires it, to have the floor thoroughly washed out.

Spitting and throwing ink on the floor. The filthy habits that some children have of spitting on the floor, or of throwing the ink on it when they take too much in their pens, should be earnestly and fully repressed. Such habits are serious breaches of good manners; and one at least of them would entirely unfit them for any but American society. From the other, the teachers themselves are not entirely free. On the days of their examination, the boards of the floor are, near some of them, completely dotted over with spots of ink thrown out of the pen there, *instead of back again into the bottle.* Both habits are offensive. They are produced, as all habits are, by a continuous repetition of the same acts, and must be put down early, or they cannot be put down at all.

(4.) Premises. (4.) Before dusting the room, the fire should be lighted, and the windows and doors opened, in order that an abundant supply of pure air may circulate through the room.

Dust not to lie near the door.

Do not permit the dust to lie near the door. All ashes, dust, and refuse must be carefully carried out of sight; for neatness and cleanliness must be quite as characteristic of the grounds as of the school itself.

In what state the premises ought to be

These grounds must not be allowed to go out of order. If not cultivated, they must be kept dry and clean, and in serviceable condition. Broken stones covered with small gravel or sand form an excellent yard. Those portions not used for a playground, or for walks, should be dug up and planted with flowers and shrubs. The primrose, the cowslip, the wallflower, the variegated daisy, convolvulus, lupin, &c., are common, and easily procured, and yet pretty. The ordinary shrubs are also very inexpensive. Some few of these and creeping plants should be seen either against the walls or in the grounds of every primary school. How very rarely anything of this kind is seen. The expense is quoted as the great stumbling-block; but I agree with Mr. Porter when he says[1] that 'the plea of expense is only an excuse for avoiding a little labour and attention. The real cause is a want of taste, absence of habits of neatness and order, the results of early education and associations. The eye which from youth up has been accustomed to the broken and unwashed window feels no repugnance at the sight. The bare walls, unadorned by rose-tree or creeping plant; the premises untidy, and unrelieved by a flower or a shrub, are familiar objects, and therefore excite no disagreeable associations. "It is hardly worth while; they will be as bad in a week or two"—a reply once made to me when requesting to have the windows washed — is merely the expression of a sentiment which influences a large number of the teachers.'

Mr. Porter.

---

[1] Report of Commissioners of National Education, Ireland, vol. for 1859; Mr. Porter's Report.

Privies.

The privies must be kept clean, and the purposes of decency maintained. Pupils sometimes are permitted to commit nuisance outside the school doors, even in cases where privies have been provided. This, at all times unsightly, is exceedingly offensive in summer. Masters, to whom I have spoken on this point, say that it is *difficult* to check such an evil; but it is difficult to do almost any duty. No person ought to measure acts by their difficulty. If they are possible and right, they *should* be done.

In connection with the subject of cleanliness, I may add a few words upon the three important items —glazing, painting, and whitewashing.

Glazing.

Glazing. When panes are broken, the appearance of the house is very objectionable, even when satisfactory in other respects. To have the windows, therefore, fully glazed is essentially necessary; but to secure this object the teacher must, now and then, put in a pane for himself. In towns and villages there are tradesmen who can glaze; even then, however, it will be cheaper to do it oneself; but in country places no such person is to be had, and, if one is sent for, the expense is often serious, especially when only one or two panes are required. It may happen, also, that the man cannot always be had, or be found sufficiently willing to undertake a trifling job, when at a distance from his home. To be unable to put in a pane entails the following inconveniences: expense, loss of time, a character for untidiness and neglect; censure for this neglect, a risk of the master and children catching colds, and a risk of becoming accustomed to defects.

The last is a matter of some importance, as the eye readily gets accustomed to irregularities, and ceases to notice them at all. No time should be lost in putting in a pane when required, especially in the schools of Ireland, a country where the broken windows of the peasants' homes are patched with paper or cloth, or the vacancies filled up with an old hat, a slate, or a board, and where, therefore, the necessity for a good example is so strong. If the boys saw how easy it is to put in a pane of glass, and saw also that the master was not above this business when necessity required him to perform it, they would, as an inevitable consequence, readily do likewise in their own houses.

How to do it.

Glazing does not require any lengthened apprenticeship. It requires a knowledge of the method, and a little handiness in bringing that method into practice, and these can be learned after a few trials. Putty is made from 'boiled oil,' thickened with whiting, and is so easily made that no teacher ought to be without it. It can be bought at a very trifling cost. Panes of glass to suit the compartments of any frame can be had at a small cost also, and teachers, when they come to town, should purchase what would do for a year, as buying them in large quantities cheapens each pane considerably. The cost should not be more than from three to four shillings, and very rarely indeed will it be that much. To put in the pane:—*First.* Remove very carefully all the old glass and putty, leaving the wood clear and comparatively smooth and clean. This can be done by the knife which glaziers use (to be procured for a few pence), or by an oyster knife, or old chisel. *Secondly.* Place a *thin* coating of putty round the groove of the window where the pane is to lie. *Thirdly.* Press the glass firmly against this, so as to imbed it in it, and then put on the outside as much putty as will hold the pane firmly in. Be guided in this by the appearance of those glazed by the proper tradesman. *Fourthly.* On *the next day*, but not till then, when the putty is set, the whole is to be made water and air-tight. A little practice soon renders the thing exceedingly easy.

Considered

It may be said, however, that it is not the business in reference to the manager.

of the teacher to keep the windows in repair, but of the manager. There is no doubt but that it is his business, but there are so many managers who neglect their duty that the teacher must do it, or else the school will fail, and the inconvenience will be most felt by the teacher. It is a bad thing, however, to be continually calling on the aid of the manager for little trifles. It is better to do those small things oneself, and use the manager's aid when his assistance would be of real value. On this subject I shall quote what Mr. Irvin says. This gentleman is now an inspector, but he was formerly for many years a zealous teacher, and, as he knows thoroughly the difficulties under which the teaching body labours, it is not likely that he would write anything against their interests, or require of them anything beyond their abilities. He says: 'A good teacher gives his manager little trouble, but there are many who expect everything to be done for them—who would not put a nail in the latch of the door, until the manager would see it. I have found teachers at broken windows in the winter season, with the cold wind blowing about them, and over the heads of the children—teacher obliged to wear hat or cap, and children shivering and coughing—thus exposed, day after day, to the dangerous influences of such draughts, thoughtless of the effects, waiting till the manager might come and get a pane or two put in, the whole of which would not be over sixpence. I found fault with such, and advised them to put to their own hands, and manage those trifling matters themselves.'

I know several schools suffering much from this defect. The teacher thinks the manager should glaze the windows, the manager thinks the landlord should do it; and as the landlord refuses, and looks upon giving the school at all as a compliment, the houses are rarely fit to be seen. I have given invariably to these teachers the advice that Mr. Irvin gives; 'To put to their own hands, and manage those little matters themselves.' The man who is always saying, 'It is not my duty to do this, or that,' is very worthless as a public servant. He who merely does his duty may be paid for his services, but he can never expect to gain the friendship and esteem of his employers. A man should be always seeking for opportunities to exert himself, and make himself more useful. It is by works of supererogation that we advance.

Painting. The woodwork, when not stained, should always be painted. The tablet rails ought to be painted black, as this colour forms a good contrast with the white walls. Red, green, or blue look however very well, especially green and blue. The desks, presses, &c., are generally painted brown. Just as in glazing, the teacher ought to do this himself, unless when regularly done for him. The expense is very little when dry colours are purchased, and when the teacher can mix the paints himself. In the foot note,[1] I give receipts for the mixing of those most commonly met with. To put on colours is very

Painting.

---

[1] The following recipes may be found of advantage:—

Black paint: Lamp black burned on an iron until it quits smoking (about half an hour), thoroughly mixed with boiled oil (this is done with a knife on a plate) to the consistency of putty. Thin this at pleasure with oil and turpentine.

Green paint: Take dry green paint ground in the same way as above, but use turpentine instead of oil.

Stone colour: Umber and white lead. Thoroughly burn the umber (about half an hour or more on an iron plate will be sufficient), grind it well with boiled oil. Mix with this the white lead previously mingled with oil. If it be too dark, put in white lead; if too light, put in umber.

Dark brown: Umber dried, and mixed with oil.

White paint: White lead and turpentine (oil darkens too much).

Red paint is procured dry. Grind with oil.

Blue paint: Prussian blue, ground with oil, and then thinned.

Venetian red: Venetian red, ground in oil.

Yellow: Crome yellow. Mix with turpentine.

Mahogany colour: Ground of red. When dry, rub well with emery or glass paper. Give a second coat of red (finely easy. Every teacher should have a supply of brushes, and of paint, constantly on hand, and be always touching up a place here and there where he thinks an improvement in the appearance of the house might be thus effected. The woodwork of the windows ought to be white.

When I find a man who thus helps himself, I am always more anxious to reward him than even the man who would lay out five or six pounds in paying regular tradesmen. I can have more faith in the continuance of his exertions, and I prize highly the example of self-reliance thus set before his children.

White-washing.

Whitewashing. But little need be said upon this point. The more frequently it is done, the better the schools look, and the more wholesome they are; for lime not only cleanses but purifies. The lime should be mixed with glue to make it adhere better, and thus last longer, and be less liable to soil the clothes of the children. An unwhitewashed house not only looks gloomy, and impresses a person unfavourably, but in it the charts, maps, &c., are generally disfigured and injured. In whitewashing avoid dirtying the woodwork inside, or the creeping plants outside. Both should be carefully covered during the time.

11. Attendance.

(11.) Attendance.

Irregular and unpunctual.

The attendance of the children is marked by two serious faults: it is *irregular* from day to day, and it is *unpunctual* in the mornings. Both these retard the progress of the school, create confusion in the arrangements of the classes, and both tend, when once allowed into the school, to reproduce themselves. The masters have but little direct influence over the first, though there are

prepared); polish with paper as before. Third coat of same kind, and shade with rose pink, using the ordinary graining brush.

These colours are very inexpensive, and will be found to answer all ordinary purposes.

several steps which they might take which would prove more or less effectual. The most important of these consists *in making the schools popular.* The statistics of organised schools have clearly proved that the more valuable the school is, the more regular will the attendance be. In many cases parents send their children to school at a serious inconvenience and loss to themselves, and this they will not do unless they really value the kind of education which is given in the school. Another remedy, based on this, is *exclusion of all who attend badly.* But in very few cases will the master find himself so popular, or to have so complete a monopoly of the education of the district, as to make so extreme a measure judicious. When the regulations are too strict the parents are displeased, even when they feel that eventually good will arise. *The system of payments* has a great deal to do with the character of the attendance. If the pupils pay weekly, or do not pay at all, the attendance is almost certain to be bad. As this statement can only be proved satisfactorily by the actual workings of schools, I will quote here the following authorities:—

Remedies.
(1.) To improve schools.

(2.) Exclusion.

(3.) Payments to be quarterly.

Mr. Fletcher.

Mr. Fletcher says:[1] 'If a boy be kept at home for a day or two at the beginning of the week, the mere feeling to have value for their money induces the parents to keep the children at home a day or two longer rather than pay the pence for the broken week.'

Mr. Bellairs.

Mr. Bellairs says:[2] 'Among the different causes which have made the poor indifferent to education, there has probably been none more effective than that which has reduced to its lowest minimum the school payments of their children.'

Dr. Woodford.

Dr. Woodford says:[3] 'I have reason to think that the system of weekly payments, and which is naturally followed by an understanding of weekly engagement, is one great source of irregular attendance.' 'I have,' he adds, 'accumulated evidence of the fact, mentioned in former reports, that when a child is kept at home in the beginning of the week, from whatever cause, he is not sent to school till next Monday, because some part of the penny would be paid without its corresponding value in time, the incomparably greater loss to the child, especially in habit, being entirely lost sight of.'

---

[1] Min. of Council, 1846–7, vol. ii. p. 14.
[2] Ibid. 1852, p. 436.
[3] Ibid. 1854, p. 708.

Mr. Morrell.

Mr. Morrell lays it down as the result of his experience,[1] (1) that gratuitous instruction seems to fail; (2) that in some cases an increased rate of payment seems to augment the attendance, especially if accompanied by superior instruction.

To be in accordance with the circumstances of the people.

The remedy is in the hands of the managers and teachers. The payments should be made *quarterly in advance, no allowance being made for absent time,* and the rate should be regulated by the circumstances of the people. The system of paying by what is learned is now almost exclusively condemned, and is rarely practised except in very inferior, or very exceptional schools.

Mr. Moseley.

Mr. Moseley says:[2] 'It is far the best arrangement, and one which, wherever I have known it to be tried, has worked well, to give all the children equal advantages of instruction, but to fix the scale of payments according to the stations in life of the parents. The principle which affixes an additional payment for every additional subject taught, offers to the master a temptation to neglect the children who pay him least, for those who pay him most; and it is a system by which a child who learns one subject is deprived of that assistance in learning it which he might derive from a knowledge of others.'

---

[1] Min. of Council, 1859, p. 220.

[2] Ibid. 1847, p. 387.

Mr. Mitchell.

Mr. Mitchell says:[1] 'Payments for extras, as geography, writing, &c., are objectionable. Each child should be taught all that his capacities fit him for.'

Mr. Kennedy.

Mr. Kennedy calls this system,[2] 'a most pernicious system in schools for the poor.'

The system of paying according to the circumstances of the parents, and not according to what the children learn, is adopted in all model schools, and found to be a complete success.

(4.) Parents to write or speak to.

Another course to improve the attendance is to write or speak to the parents on the subject. Speaking is better whenever it can be done, but writing is a good substitute. There should be a printed form to be filled up when the absence or irregularity of any child was very marked. 'A master who makes a point of doing this assures me that the gradual difference in the character of the notes which the parents return is most remarkable. At first their notes are not only badly spelt and expressed, but often *rude and discourteous*. After a time there is a marked improvement in them, they gradually become both creditable in style and civil in tone.'[1]

---

[1] Min. of Council, 1848, vol. i. p. 318.

[2] Ibid. 1848–9, vol. ii. p. 177.

Mr. Jones, in his Report for 1849 (Min. of Council, vol. ii. p. 196), gives the following as what is adopted in a poor parish of Anglesey:—

Parents assessed to the poor-rates at 50*l.* or upwards, pay—
    For one child, 5*s.* per quarter.
    For two children, 4*s.* each, ditto.
    All above two children, 2*s.* 6*d.* each ditto.
Assessed to 30*l.* and under 50*l.*—
    For one child, 4*s.* per quarter.
    For two children, 3*s.* each, ditto.
    All above two children, 2*s.* each, ditto.
Assessed (or rented) to 10*l.* and under 30*l.* (tradesmen)—
    For one child, 3*s.* per quarter.
    For two children, 2*s.* 6*d.* each, ditto.
    All above two children, 1*s.* 6*d.* ditto.
Assessed under 10*l.*—
    For one child, 1*s.* 6*d.* per quarter.
    For two children, 1*s.* each, ditto.
    All above two children, 6*d.* each, ditto.

If day labourers and others under 5*l.* a further reduction is made according to circumstances.

A day or two before the coming quarter, tickets are issued and paid for according to the above scale.

The more destitute are supplied with money to buy tickets. And this in a parish where the labourers at the best season do not receive more than 8*s.* weekly.

See also Min. of Council, 1851–2, p. 600; 1856–7, p. 620. Report of Education Commissioners, 1861, vol. ii. p. 188.

There are various other means which, although they will be more or less incomplete, will prove, if seriously attempted and faithfully carried out, of considerable benefit. In fact there is no remedy wholly effectual, but none without some advantage attending it.

Punctuality.

With regard to the want of punctuality, any remedy which acts upon the irregularity just treated of will also act more or less fully upon this; but, in addition, the teacher may make the attendance a great deal more punctual than what it now is, (1) by being punctual himself, and (2) by going on with the business exactly at the moment marked on the time table of the school.

(1.) Teachers to be punctual themselves.

(2.) Begin at the moment marked on the time table.

In the first place, he must not appear to give countenance by his own deficiencies to the shortcomings of his children; and to make his admonitions thoroughly of use, he must himself practise what he preaches. The Commissioners of National Education in Ireland oblige the teachers to be in attendance half an hour before the time marked on the time table for the commencement of the day's business; and in several schools in England the managers carry out this rule also. It enables the teachers to prepare fully for the arrival of their scholars, and to begin the duty of teaching at the very moment. When parents see that the teachers are thus punctual, they generally manage to make their children attend punctually also.

In the second place, I find that in most schools, when pupils come an hour or an hour and a half late, they are allowed to begin at the beginning of the day's duty, exactly as if they had been in at the proper time. This, of course, prevents all order—all adherence to the *time table*, all economy of the master's time—interferes with the attention which he should pay to other children, and is, moreover, a *premium upon irregularity*. If children who thus attend receive all the lessons they would otherwise have received, what is to induce them to attend earlier? And, again, if pupils who attend punctually are obliged to sit, as they often are, until their class-fellows arrive, and thus receive no more benefit than those who come late, is it likely that they will continue to attend so satisfactorily? Decidedly not. The only course is to go on with the duty, no matter how many or how few are punctual, and let those who come late lose the benefit of the lessons passed over. By this means many will be induced to attend regularly who otherwise would not exert themselves to do so.

---

[1] Min. of Council, 1859–60, p. 190.

(3.) **Appeal to the children themselves.**

In addition to the means already stated, the teachers will sometimes be very successful if they directly appeal to the scholars themselves. This will be especially the case if their children look up to them with respect and confidence. When children are treated rationally, it is well known to those who have much dealings with them, that they often take a pleasure in coöperating in any task. The confidence reposed in them, and the tacit flattery that they are worthy of that confidence, are very powerful stimulants to exertion, and will often succeed when all other remedies have failed. Children are very grateful; and gratitude will induce them to accomplish much. The grown boys may be the first convinced, and their example will aid in convincing the others.

Parents, moreover, not only like to be consulted themselves, but they like their little children to do from kindly motives whatever it is right for them to do.

12. Parents.

(12.) *Parents.*

Neglected by teachers.

The influence of parents is one of the agencies for their own good, and for the well-being and advancement of their schools, which teachers too frequently overlook. This is partly the result of Government aid, which, by rendering the teachers to a certain extent independent of the good-will of the people, has lessened the intimate connection which ought to exist between them and the parents of the children. The masters neglect to solicit the influence of the parents, and the parents, in their turn, refuse to use this influence either for the teachers' good or for the good of the schools. Those two agencies, which ought naturally to coöperate in the education of the children, thus remain at variance. But if the teachers will only consider that there are three parties concerned in the success of every school—*themselves, the parents, and the children*—and that the institution can never attain to its highest point of excellence without the joint and willing aid of all, they will see that they are acting not only wrongly, but foolishly, in neglecting to seek the good-will and assistance of the people and the children—of the children probably even more than of the people, for it is upon them that all agencies must ultimately act. The influence of the parent and the influence of the master are nothing in themselves, but only as they are capable of producing activity, zeal and steadiness in the pupils. If a master act by himself in trying to secure these, neglecting the aid of the parents, he employs the least valuable means of success. There can be no agency so potent as the natural influence of the father and mother, and no teacher ought to neglect to cultivate it. Even for his own sake, he ought not to do so; for the better he is liked the better he will be paid, and the more there will be to pay him. The confidence of the people, which can never be thoroughly secured except by personal

Why wrong.

intercourse, invariably increases the attendance, and induces them to pay more regularly and more liberally.

Mr. Sheridan's views.

Mr. Sheridan, writing upon this subject in his Report for 1859, says,[1] 'Teachers can do a good deal towards improving their own position by labouring steadily and perseveringly to render their schools more efficient, *and by manifesting a zealous interest* in the progress of their pupils, and in this way increasing their own influence with the parents.

'When a pupil has been irregular in attendance, or neglects to prepare his tasks properly at home, how very rarely does the national teacher take the trouble to call upon his parents, and speak in a friendly manner to them on the subject. And yet it were well worth his while to do so (besides being his *duty*); for this is one of the main causes of the popularity of the "hedge" schoolmaster, who never loses an opportunity of manifesting to the parents the interest he feels in the progress of their children; and this, too, is doubtless the reason why parents who grudge a halfpenny or a penny a-week to the national teacher willingly pay threepence or fourpence to the "hedge" schoolmaster.'

Advantage of.

This intercourse, in a friendly spirit, tends also to remove many of the difficulties under which teachers sometimes labour, from the undue interference of parents, in the management of the schools. I am aware that parents are sometimes exceedingly unreasonable, and that it is difficult, even with the best management, to deal satisfactorily with their whims and fancies; but I am also aware that good teachers seldom or never complain of this matter. They appear to be either wholly free from the annoyance, or to be able to overcome objections and difficulties without much trouble. Whenever I hear much stress laid upon the objections of the parents, I am always inclined to doubt the efficiency of the schools, and, for the most part, I find that I am correct. There is a *general* deficiency in such schools; and as the parents falsely attribute this to the attention given to extra subjects—as grammar, geography, history, &c.—to the exclusion of the more important subjects of the school-course, they begin by finding fault, and end by objecting to the study of all except reading, writing, and arithmetic; and, in some cases, even of one or two of these. Had the defects never existed which first aroused the attention of the parents, the teachers would have been left undisturbed in the management of their schools.

---

[1] Report of National Education Commissioners, Ireland, vol. 1859; Mr. Sheridan's Report.

How to meet their objections.

When the schools are efficient, most of the difficulties will be overcome by a little address on the teacher's part; but where the parents insist upon what they have no right to get, there is but the one course. Their children must be refused admittance: the common good requires such a course. 'The function of the parent is to select a good school for his child; but once the child has been delivered over to the charge of the teacher, the parent's directing or controlling power ceases. I do not mean to deny to the parent an *interest* in the regulations of the school; but I do mean to deny him all power of *interference*. We never hear of a parent directing the professor of a University as to the portion of the college course which he desires his child to study, and a stronger reason holds for the parents of children attending elementary schools to abstain from all interference with the duties of the teachers, on account of their greater ignorance, and therefore greater inability to make a wise suggestion, or to have any control at all in the technical part of education. There is a certain minimum course of secular knowledge which every child that enters an elementary school should be *compelled* to learn, over which, and all the school arrangements connected with which, the parent should have no control.'[1]

Refusal the best for all.

A firm, but polite, refusal where parents go to extremes, is the only true course. It will even be the best means of raising the teacher himself in the estimation of those whom he thus apparently disobliges; for as the parents, if wrong, will gradually come to see their error, they will be certain to respect him who maintained the right, even at a sacrifice. In some cases, teachers of a yielding disposition give way to this undue pressure. Being afraid to oppose, where they know that opposition will produce trouble and pecuniary loss, they bend to the storm, and, as a natural result, the schools become disorganised and confused, and retrograde daily. In the end, the masters are blamed by all; even by the very persons they sought to please. They succeed in pleasing nobody, and lose their professional character into the bargain.

Another fault.

Another fault, something akin to this, is where the masters do not indeed give up the teaching of the subjects to which the parents object, but devote to them much or little time in proportion to the opinions which the most influential entertain of them. This also is an undue yielding to the interference of the people, and must be firmly opposed. The masters must weigh well the relative importance of each subject, being guided in this a good deal by the circumstances of the localities, and then devote to each the exact time they think correct.

Exceptional cases.

There will, however, occasionally arise a few exceptional cases, no matter how well the general rule has been studied. It is in dealing with these that the teacher must show his tact and ability. It is by judiciously varying the general rules, when no principle is involved, to suit peculiarities daily arising, that schools are made popular.

---

[1] Report of National Education Commissioners, 1859; Mr. Keenan's Report.

13. THE TEACHER'S OFFICE.

(13.) Teacher's office.

There is scarcely any office under the Government which tends more directly to produce the social well-being of the people than that of the teacher. A good school prevents crime, and thereby adds to the value and security of property, and forms beneficially the manners and character of the people. A teacher has it in his power to plant sedition and discord, to sow treason and corruption, irreligion and immorality, and to band the people together for evil; or he may cultivate allegiance to the sovereign, obedience to God, and respect for our fellow man; and he who has so much in his power for good or evil, and chooses the right course, is deserving of the highest respect of his fellow citizens—respect in proportion to the power he possesses and not abuses. 'But the amount of honour and emolument actually attached to their calling depends, as is the case with other callings, not upon its intrinsic importance, but upon the feelings with which it is regarded by society at large. If not taught to view the matter in this light, there will always be a considerable risk that the efforts of the Training College authorities to impress the students with a sense of their responsibility, and the fact that the course of instruction is carried on by the stimulus of literary examinations, may produce a combination of zeal—half professional, and half religious—with personal ambition which can lead only to disappointment and discontent.

Value of.

Respect actually attached to is determined by the people.

'The occupation of an elementary schoolmaster is not well fitted for a young man of an adventurous, stirring, or ambitious character, and that it is rather a misfortune than otherwise, when persons of that temper of mind are led into it by the prospect which its earlier stages appear to afford of rising in the

For whom the office is fitted.

world socially as well as intellectually. It is a life which requires a quiet even temper, patience, sympathy, fondness for children, and habitual cheerfulness. It wants rather good sense and quiet intelligence than a very inquisitive mind or very brilliant talents, and the prospects which it affords appear well calculated to attract the class of persons best fitted for it. A schoolmaster is sure of a good income (in England), a great deal of leisure, and moderate labour as long as his health lasts. If his prospects are not so extensive as in some other walks of life, they are more sure. He is never out of work. He is affected only casually and indirectly by the vicissitudes of trade, and he fills a position, which, if not socially all that he could wish, is universally recognised as respectable and useful.'[1]

A great deal depe on the ma himself.

A great deal of the respect given to his office depends upon the teacher himself. All persons acquainted with the habits of the poor, know that they respect persons rather than systems. They value the teacher and not his teaching, or rather they confer upon his office the respect they have for the man. Teachers, therefore, must live uprightly and honourably, and in all their dealings they must scorn to act with meanness or craft. Their demeanour must be modest and unassuming, yet free from any taint of cringing or sycophancy. They must act like men, looking openly in the face of all, holding their own with firmness, giving to each his due, but never sacrificing that self respect which is their greatest value. They must lead religious lives, avoiding public-houses and bad company, and must be in every respect a guide for the people with whom their lot is cast.

What he ought to be.

They must not only be their guide but their friend, ever ready to oblige as far as in their power, to counsel them, and perform generally the office of true neighbours. They must be men of the world, business men, capable of assisting in the difficulties and disappointments of their localities, and thus by being useful they may gain the confidence and favour of the people, and be in a position to lead them, by acting on their higher traits of character, to their own good.

---

[1] Report of Education Commissioners, 1861–2, vol. i. p. 162.

LONDON
PRINTED BY SPOTTISWOODE AND CO.
NEW-STREET SQUARE

ELEMENTARY SCHOOL-BOOKS

By EDWARD HUGHES, F.R.A.S., &c.

LATE HEAD MASTER OF THE ROYAL NAVAL LOWER SCHOOL, GREENWICH HOSPITAL.

NEW AND IMPROVED EDITIONS.

GEOGRAPHICAL WORKS AND ATLASES.

OUTLINES of PHYSICAL GEOGRAPHY, descriptive of the Inorganic Matter of the Globe and the Distribution of Organised Beings. With 8 coloured Maps .... 12mo. 3*s.* 6*d.*

EXAMINATION-QUESTIONS on *Outlines of Physical Geography* .... 12mo. 6*d.*

HUGHES'S ATLAS of PHYSICAL, POLITICAL, and COMMERCIAL GEOGRAPHY; 17 full-coloured Maps and Letterpress Royal 8vo. .... 10*s.* 6*d.*

HUGHES'S SCHOOL ATLAS of PHYSICAL GEOGRAPHY, comprising 8 coloured Maps, compiled by W. HUGHES, F.R.G.S. 12mo. .... 1*s.* 6*d.*

HUGHES'S INTRODUCTORY ATLAS of MODERN GEOGRAPHY, comprising 12 coloured Maps, engraved on Steel, 12mo. 2*s.* 6*d.*

HUGHES'S GEOGRAPHY for ELEMENTARY SCHOOLS. 18mo. .... 1*s.*

HUGHES'S GENERAL ATLAS for ELEMENTARY SCHOOLS; 12 Maps, engraved by W. HUGHES, F.R.G.S. 18mo. coloured .... 1*s.* 6*d.*; plain, 1*s.*

SACRED GEOGRAPHY AND HISTORY.

HUGHES'S OUTLINES of SCRIPTURE GEOGRAPHY and HISTORY; comprising Palestine and the adjacent Bible Lands. With 12 coloured Maps .... 12mo. 4*s.* 6*d.*

HUGHES'S SCHOOL ATLAS of BIBLE LANDS, containing 12 full-coloured Maps, engraved by J. and C. WALKER. Fcp. 8vo. 1*s.* 6*d.*

ARITHMETIC.

HUGHES'S MANUAL of EXPLANATORY ARITHMETIC, including numerous carefully constructed Examples.... Fcp. 8vo. 1*s.* 6*d.*

TEACHER'S COPY of ditto, with ANSWERS to the Examples. Price .... 3*s.* 6*d.*

ENGLISH READING-BOOKS.

HUGHES'S SELECT SPECIMENS of ENGLISH POETRY. Comprising Poems—1. Historical and Geographical; 2. On the Love of Home and Country; 3. Labour and Progress; 4. Relating to the Sea and the Sailor; 5. On the Love of Nature; 6. Of the Imagination and Fancy; 7. Religious and Moral .... 12mo. 3*s.* 6*d.*

HUGHES'S SELECT SPECIMENS of ENGLISH PROSE. Comprising Pieces relating to—1. Natural History and Geography; 2. Biography and Civil History; 3. Education and the Progress of Society; 4. The Sea and Maritime Adventure; 5. The Imagination and Sympathetic Affections; 6. Science and General Knowledge; and 7. Miscellaneous Knowledge .... 12mo. 4*s.* 6*d.*

London: LON Ludgate Hill.